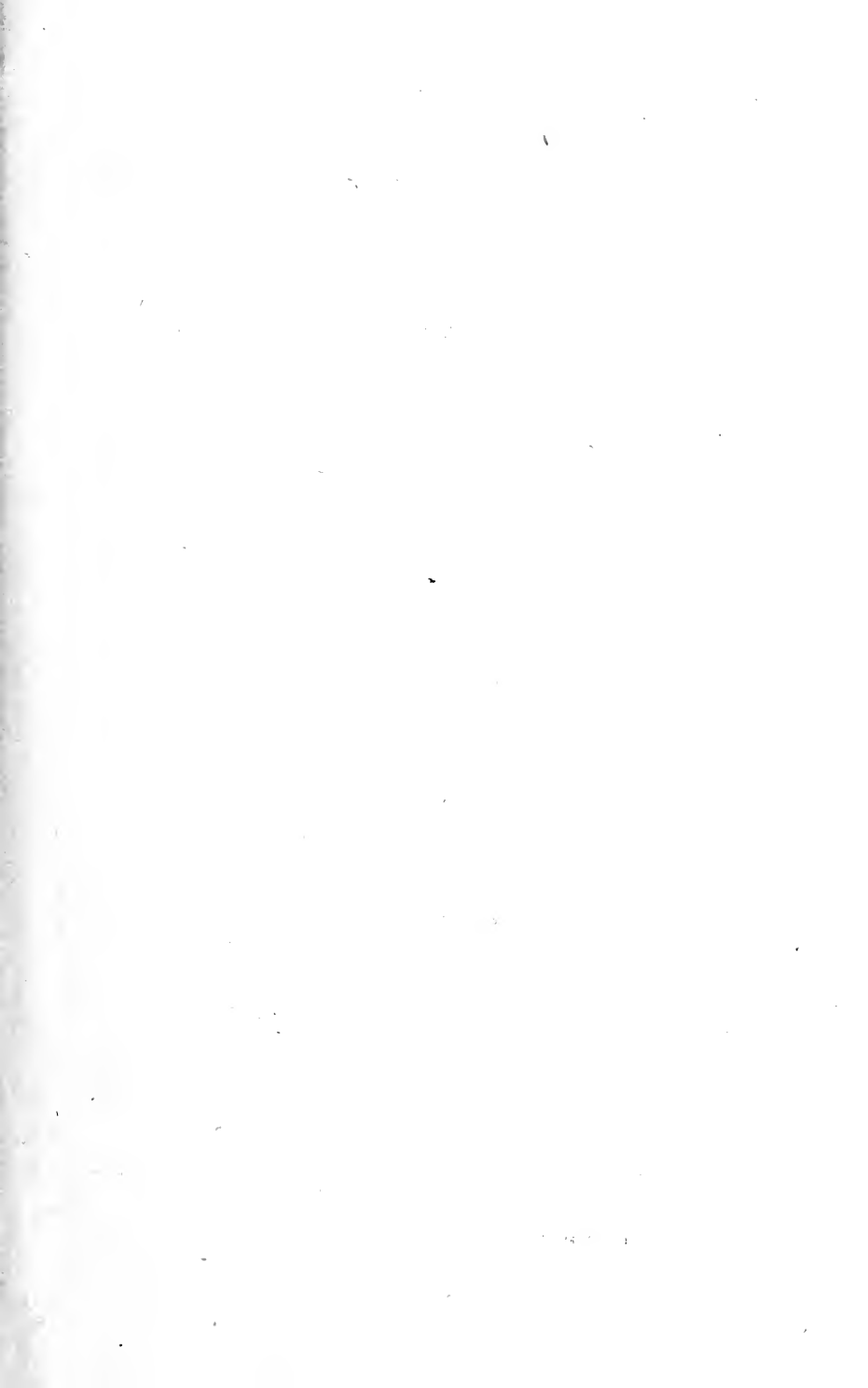


Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation





Flag Raising at the Chester Shipbuilding Company

The first step toward industrial Americanization and the development of plant spirit is to provide the right environment.

LABOR MAINTENANCE

A Practical Handbook of Employees' Service Work

By

DANIEL BLOOMFIELD

Of Bloomfield and Bloomfield, Consultants in Employment Management and Industrial Relations; Author of "Employment Management," "Modern Industrial Movements," "Problems of Labor"; Associate Editor, "Industrial Relations," "Bloomfield's Labor Digest."



UNIVERSITY OF
CALIFORNIA

NEW YORK
THE RONALD PRESS COMPANY

1920

HD 7261

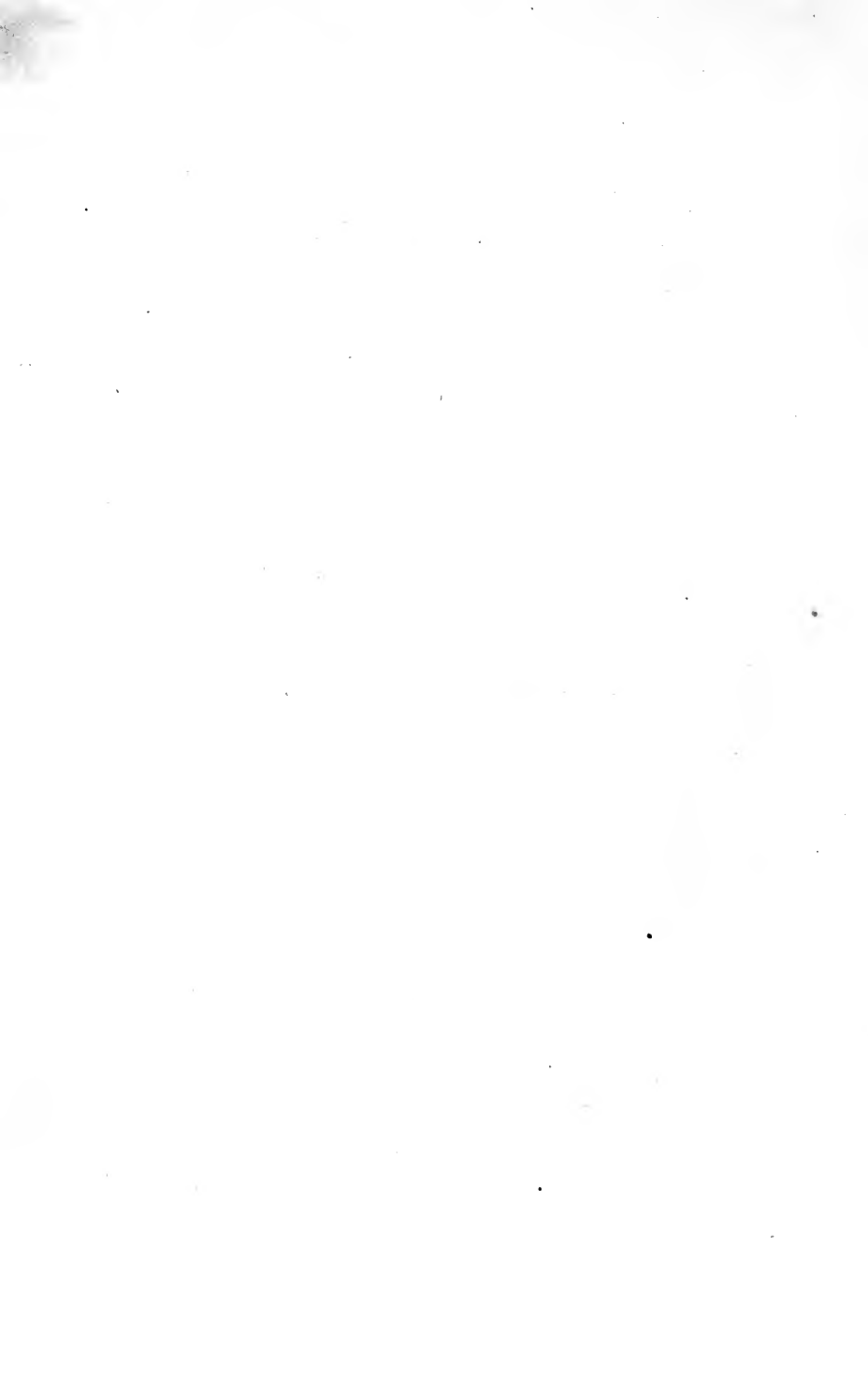
B6

Copyright, 1920, by
THE RONALD PRESS COMPANY

All Rights Reserved

NO. 1000
1920

To
MR. AND MRS. A. LINCOLN FILENE



PREFACE

There has long been a need for a book which points the way to better methods in what was once known as "welfare work" and to make clear the principles which must underlie sound service work with employees. The need for a practical handbook has also been evident; and with these needs in view the author has prepared the present volume.

The aim throughout has been to give as many practical examples of successful work as possible, so that employers, employment executives, and service workers would have at hand the experience of other concerns combined with information and discussion as to the best practice. Like other new developments in industry, employees' service work will have to go through the stages of experimentation; but there is no need for costly mistakes due to a wrong conception of the purpose of such work, and it is in the hope that this book may be of assistance in avoiding pitfalls that it is offered to industrial executives and others interested in the subject.

The author wishes to make grateful acknowledgment here of the generous assistance given him in the preparation of this volume by Mrs. Edith Reider Barron, formerly of the International Harvester Company, Meyer Bloomfield, J. W. L. Hale, formerly in charge of apprenticeship work of the Pennsylvania Railroad and recently with the Chester Shipbuilding Company, who assisted in preparing Chapter V; to Frederick J. Allen, author of "The Shoe Industry" and other contributions to industrial literature, and who gave material help in the preparation of some of the chapters; to Albert

Pick and Company, for data on employees' lunchrooms and cafeterias; and to executives and officials of various companies who have co-operated with the author in making the information in this book available to readers.

DANIEL BLOOMFIELD.

Boston, Massachusetts,

September 1, 1920.

CONTENTS

CHAPTER	PAGE
I NEED FOR SERVICE WORK	3
New Interpretation of an Old Problem	
Wastes Owing to Labor Turnover	
Conditions in Metal Plants	
Magnus Alexander's Investigation	
Some Street Railway Figures	
Detroit Conditions	
Transportation	
Shipbuilding	
Cloak and Suit Trade	
Conditions in Milwaukee	
Factors in the Cost of Labor Turnover	
Subject Under General Study	
Plant Maintenance and Labor Stability	
Co-operation of Worker and Management Necessary	
II SERVICE WORK—THE RIGHT FOUNDATION	14
"Welfare Work"—Its Failure	
Workers' Dislike of Being Patronized	
Organized Labor Suspicious	
England—"Welfare Supervisors"	
"Trade Union" Views	
A Better Name—"Service Work"	
Aims and Ideals	
New Conception of Employment	
Service Work and Industrial Justice	
Service Work Good Business	
A Constructive Force—Brings Co-operation	
Conditions of Work Must Be Good	
Wages Must Be Fair	
Properly Co-ordinated Effort	
III THE EMPLOYEES' SERVICE DEPARTMENT—ITS RELATION TO OTHER DEPARTMENTS	26
Proper Name for the Department	
Service Department Includes Employment	
One Plan—Executive Board	
Employment and Service Department	
Plimpton Press Plan	
Terminology	
What "Employment" Should Imply	
What "Service" Should Imply	
What the Department Should Be	

CHAPTER	PAGE
In Large Concerns—Department of Industrial Relations Sometimes Called "Labor Department" Sometimes—"Personnel Department" Under Whom Shall the Department Function? General Manager Works Manager Industrial Relations Manager	
IV INTERNAL ORGANIZATION OF THE SERVICE DEPARTMENT . . .	42
Size of the Department Office Organization—System Filing and Record The Executive Always Accessible Conferences Special Studies and Reports Keeping in Touch with Other Concerns Planning Activities Making New Workers Feel at Home Instructions for "Interviews" Greeting New Employees—The Wrong Way Greeting Employees—The Right Way Utilizing the Rulebook "Follow-up" Men Other Activities Outlined The Budget—The Department's Estimate The Employer's Estimate	
V THE SERVICE MANAGER	56
A First-rate Executive Needed General Qualifications Training and Experience Personality Judgment Possibilities Where to Find the Man Correlation of the Employment and Service Departments Duties of the Employment Manager Duties of the Service Manager The English Viewpoint Duties Inside and Outside the Factory Inside Supervision of Working Conditions Canteens for Workers Ambulance, Restroom and First Aid Cloakrooms and Sanitary Conveniences Outside the Factory Personal Records of Employees The Future of Service Work	
VI BUILDING UP A PLANT SPIRIT	69
The Problem of Morale Plant Spirit—Right and Wrong What Plant Spirit Is 1. Right Working Conditions 2. Elimination of Fear and Uncertainty	

CONTENTS

ix

CHAPTER	PAGE
Limiting the "Power of Discharge"	
A Plan for Regulating Discharges	
Employees Must be Treated Fairly	
3. The "Other Fellow's Point of View"	
4. Self-help Through Mutual Respect	
A Specific Instance of the Development of Self-help	
5. Opportunities for Advancement	
6. Enthusiasm of Management	
The Part of the Foreman	
New Conception of the Foreman's Job	
The Stupid Foreman a Handicap	
Reaching the Foreman—Labor Efficiency Bulletins	
A Remarkable Record of Plant Spirit	
VII TRAINING THE WORKER	87
Need of Industrial Training	
Benefits of Training—Efficiency	
Aims of Training	
History of Trade Education	
The Decline of Trade Education	
The Revival of Trade Education	
Aim of the New Trade Education	
Training for Every Worker	
Advantages—Better Relations	
Advantages—Reduction of Labor Turnover	
Job Adjustment—Survey	
The "Job Adjuster"	
A Concrete Example of the Value of a Job Adjuster	
Apprentice Schools as Selective Media	
Increased Training Means Increased Production	
Kinds of Industrial Training	
Mechanical Trade Training	
Office Training	
Emergency Training	
Determination of Method	
Instructors	
Physical Equipment	
Correlation of Shop and School	
VIII SOME TRAINING SYSTEMS	104
Wide Variety	
The Pennsylvania Railroad Company	
The Brown and Sharpe Plan—Objects	
School Work	
Requirements for Apprenticeship	
The Cincinnati Milling Machine Company	
The Simonds Manufacturing Company	
The Larkin Company	
Goodyear Tire and Rubber Company—Special Devices	
The Factory School	
The Western Electric Company	
The Packard Motor Car Company	
The Wanamaker Plan	
The Filene Plan	

CHAPTER	PAGE
Other Plans	
Training Shipbuilders	
Aids for Establishing and Conducting Industrial Training	
IX THE PROBLEM OF AMERICANIZATION	121
The Influence of Foreign-born upon Industry	
"Industrial Americanization"	
"What America Means"	
Americanization—A Humanizing Program	
The Importance of First Impressions	
Managerial Attitude—A Determining Factor	
The Right Attitude	
The Americanization Committee	
The Influence of Plant Spirit	
Getting Behind the Returns	
A California Commission	
Report of the Commission	
An Ohio Plan	
Emphasis on Practical Results	
The Scope of Americanization Work	
X TEACHING THE FOREIGNER OUR LANGUAGE	135
The Importance of Teaching English	
Forming Classes for Study	
Selection and Training of Teachers	
Fostering Interest	
The Problem of Attendance	
Language of the Classroom	
Methods of Teaching	
Variety Aids Greatly	
Drill in Grammatical Expressions	
Work of the Bethlehem Steel Corporation	
The Ford School	
The Goodyear Rubber Company's Plan	
Other Factories Conducting Classes	
Co-operation with Public Schools	
Using Company Time	
Teaching English Pays	
XI FURTHER AIDS FOR AMERICANIZATION	148
Study of American Institutions	
Necessity for a Well-balanced Educational Plan	
Utilizing All Means of Approach	
Factory Activities	
Noon-hour Meetings	
Plant Newspapers	
Pay Envelopes	
Plant Census	
The Brown and Sharpe Company's Work	
Naturalization	
Delaware Study of the Naturalization Problem	
Co-operating with the Community	
Assistance from Local Governments	
The Public Library	

CONTENTS

xi

CHAPTER	PAGE
Assistance from Chambers of Commerce Massachusetts Department of University Extension Bulletin	
XII THE WORKER'S HEALTH	164
The Conservation of Human Energy	
Benefits Accruing to Industry	
New Qualities Required of Managers	
Loss of Time from Ill Health, Accidents, etc.	
Number of Industrial Accidents	
Effect Upon Labor	
New Conception of Health Work	
Industrial Medicine—the First Phase	
Industrial Hygiene—the Second Phase	
The Industrial Physician—a New Profession	
Legislation versus Voluntary Action	
XIII ORGANIZING A PLANT HEALTH DEPARTMENT	174
Work of the Health Department	
Relation to the Plant	
The Industrial Clinic or Emergency Hospital	
Equipment of Emergency Hospital	
Minimum Requirements of the Department	
Personnel of the Department	
Training the Industrial Physician	
Industrial Nurses	
Course of Training for Industrial Nurses	
Work of the Standard Oil Company	
The American Rolling Mill Company	
The American Cast Iron Pipe Company	
The British Government's Requirements	
XIV WORK OF THE PLANT HEALTH DEPARTMENT	191
Physical Examinations	
Objections and Difficulties	
Western Electric Company	
Avery Company	
Other Methods	
Dental Service	
Operation of Dental Clinics	
National Cash Register Company	
Eye Treatment	
The Visiting Nurse—Her Qualifications and Functions	
Eastman Kodak Company	
Training of Nurses	
Restrooms for Women	
Health Campaigns	
Training in First Aid	
Physical Training	
Shower Baths	
Co-operation with Community Organizations	
XV THE WORKER AT PLAY—THE NEED FOR RECREATION	208
Efficiency Requires a Change of Occupation	
Need for Recreation	

CHAPTER	PAGE
Recreation and Working Power	
Some Primary Considerations	
Organized Play is Sound Business	
Self-directed Recreation Best	
Freedom in Recreation	
The Example of the Cities	
Recognition of Benefits of Recreation	
Employee Management of Recreation	
The Democracy of Play	
The Alien in Recreation	
The Advantages of Athletics	
Motion Pictures	
Restrooms—Example of Eastern Manufacturing Company	
Clubhouses—Work in Mining Camps and Steel Plants	
Recreational Possibilities of the Clubhouse	
The Company Park	
The Country Club	
Music as Recreation	
XVI THE WORKER AT PLAY—METHODS OF RECREATION	222
Scope of the Chapter	
The Wagner Electric Manufacturing Company	
Interdepartment Games	
The United States Steel Corporation	
The Bush Terminal	
The Pennsylvania Railroad System	
The National Cash Register Company	
Sears, Roebuck and Company	
The Curtis Publishing Company's Country Club	
The Brass Band	
Operating Expenses	
Organization and Practice	
Other Musical Activities—Their Influence upon Morale	
Some Company Organizations	
Glee Club of Metropolitan Life	
Choral Society of Strawbridge and Clothier Company	
Dramatics	
Suggestions for "Putting On" a Play	
A Final Word	
XVII ACCIDENT PREVENTION—SAFETY WORK	236
Place of Safety Work in Labor Maintenance	
Safety Work Pays	
Reduced Accident Frequency	
Decreased Compensation Liability	
National Safety Council Statistics	
Duties of the Management	
Duties of the Foreman	
The Workmen's Committee	
Duties of the Safety Engineer	
Monthly Record Sheet for Accidents	
Safety Specifications for New Equipment	
Suggested Plans for Organization	
The Eastman Kodak Company's Organization	

CONTENTS

xiii

CHAPTER	PAGE
The United States Steel Corporation's Plan	
Interesting the Worker in Safety	
Safety Meetings	
Other Means of Fostering Interest	
The Avery Company's Campaign	
An Accident Prevention Score-board	
Development of Self-control	
XVIII DEVELOPING A SUGGESTION SYSTEM	259
A Suggestion System as an Investment	
The Influence of Managerial Attitude	
"Selling " the Idea to Managers	
The Right Foundation	
Stimulating the Employee's Interest	
Dangers of Mechanical Management	
Tapping a Reserve of Energy	
The Eastman Kodak Company's Plan	
Awards for Suggestions	
The National Cash Register Company's Plan	
Method of Handling Suggestions	
Prizes for Six Months' Suggestion Contests	
Other Suggestion Systems	
A Good Suggestion Well Worth its Cost	
XIX THE EMPLOYEES' LUNCHROOM AND RESTAURANT	275
Importance of Food upon Labor Maintenance	
Findings of British War Ministry	
A Good Business Policy	
The Pierce-Arrow Company	
The National Cash Register Company's Lunchroom	
Commonwealth Steel Company's Plan	
Further Lunchroom Plans	
Percentage of Employees Using Restaurant	
Cost and Selling Prices	
Farming Out Restaurant Privileges	
Method of Service—Cafeteria or Serving Counter	
Essential Requirements of a Successful Restaurant	
Equipment	
Kind and Quality of Food	
Effective Menus	
XX THE PLANT NEWSPAPER OR MAGAZINE	291
A Medium of Intercommunication	
Means of Stimulating Production	
Giving Personality to the Concern	
Elements of a Successful Paper	
The Paper's "Make-up"	
The News Element	
Date of Issue—Distribution	
Special Features	
A Few Successful Plant Papers	
The Editorial Staff and its Work	
Functions of the Editor	
Editorial Conferences	

CHAPTER	PAGE
Functions of the Business Manager	
Financing the Paper	
The Question of Advertising	
XXI THE HOUSING PROBLEM—IMPORTANCE	306
The Housing Problem	
Good Housing Versus High Labor Turnover	
Importance of Housing Taught by the War	
Industrial Housing in England During the War	
Industrial Housing in the United States in War Time	
Results of Inadequate Housing	
Report of the Housing Corporation	
Frederick Law Olmsted's Views	
Housing Development of United States Shipping Board	
The Importance of Housing in Peace Times	
Good Housing and Health	
Suggestions for Proper Housing	
XXII THE HOUSING PROBLEM—WHAT TO DO	321
The Duty of Industry as to Housing	
Fairbanks Morse Company's Plan	
Housing Betterment in Maine	
The Clark Equipment Company	
The General Motors Corporation	
Aiding Employees to Purchase	
Method of Payment on Dwellings	
A Unique Development	
The Goodyear Tire and Rubber Company	
The Firestone Tire and Rubber Company	
The Gary Plan	
Indian Hill	
Other Noteworthy Efforts	
Further Instances	
Housing the Unmarried Worker	
The Real Estate Bureau and Room Registry	
Separate Housing Corporation—The Best Method	
How to Go About It	
XXIII FINANCIAL AIDS—MUTUAL BENEFIT ASSOCIATIONS	339
The Elimination of Uncertainty as to the Future	
Methods of Providing for the Future	
The Nature and Growth of Mutual Associations	
Chief Forms of Benefits	
How the Employer Can Help	
The Basis of a Successful Organization	
Procedure in Organizing	
Sound Financial Policy	
Types of Organization	
The Pennsylvania Railroad Plan	
Classes of Membership	
The Relief Department	
The Bridgeport Brass Company	
The Plan in Operation	

CONTENTS

XV

CHAPTER

PAGE

Benefits
The Visiting Committee
The White Motor Company
An Excellent Plan
The American Chain Company
The General Electric Company
An Unusual Type of Plan
The Pennsylvania Agricultural Works
The Dodge Mutual Relief Association
Co-operative Associations—Employees
Aid from Employers
Saving Funds
Selling Stock to Employees

XXIV FINANCIAL AIDS—GROUP INSURANCE 357

Gradual Development of Insurance Idea
Early Mutual Insurance for Workers—Defects
Range of Mutual Insurance in Industry
Legislative Control
How Employers Can Help Mutual Insurance
Why Industry Has Taken Up Insurance
Self-help Among Workers—Benefit to Employees
Group Insurance
The Principles of Group Insurance
Advantages and Disadvantages
How the Plan Has Operated
Synopsis of a Group Insurance Policy

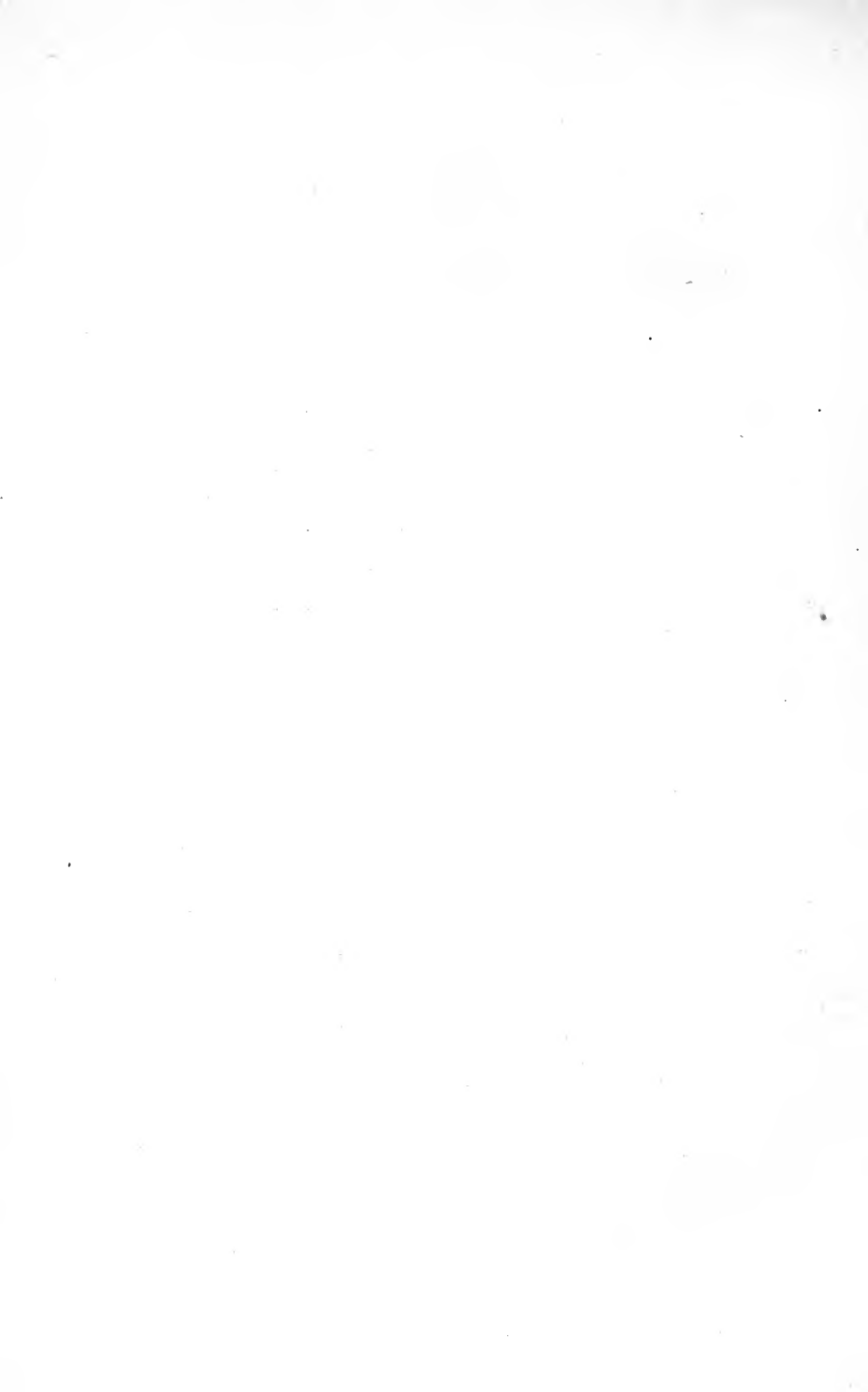
XXV FINANCIAL AIDS—PROFIT-SHARING, ETC 369

Service Annuities, Pensions, and Service Bonuses
Solvay Process Company's Pension Fund
The American Sugar Refining Company
Swift and Company
The Bell Telephone Company
Service Rewards
How the Plan Works
The Wage Bonus
The Nature and Growth of Profit-sharing
History of Profit-sharing
Opinion Growing in Favor of Profit-sharing
A Succinct Statement of the Case
Profit-Sharing Defined
Bonuses not Profit-Sharing
Profit-Sharing in Successful Concerns—A. W. Burritt Company
The Hall-Scott Company
Morris and Company
An English Plan
The Endicott-Johnson Company
The Solvay Process Company's Profit-sharing Plan
Sears, Roebuck and Company
An Exposition of the Plan's Working
N. O. Nelson Company
Summary

CHAPTER	PAGE
XXVI LINKING UP WITH THE COMMUNITY	390
The Community Idea	
The Obligation of the Employer	
Kinds of Industrial Communities	
Community Organization	
The Community Secretary	
The Civic Center	
An Example of Community Building and Improvement	
Two Examples of Steel Corporation Towns	
The Four Bases of Community Welfare	
Community Festivals and Mutual Enterprises	
Strictly Community Festivals	
Folk Festival of Norton Grinding Company	
Pageant of Merchant Shipbuilding Company	
Minor Community Activities	
Gardening	
Playgrounds and Kindergartens	
Education	
Building Citizens	
Athletics	
Community Singing	
A Development of the Community Idea	
APPENDIX A—FORM OF RECORDING LABOR TURNOVER—EXPLANATION	410
B—ESTIMATING EMPLOYMENT COSTS—CLASSIFICATION OF PERSONS EMPLOYED	421
C—SANITARY STANDARDS FOR FACTORIES AND SHOPS	424
D—PLAN FOR SHOP SAFETY ORGANIZATION	430
E—TERMS OF APPRENTICESHIP AGREEMENT	451
F—BY-LAWS DODGE MUTUAL RELIEF ASSOCIATION	454
G—BY-LAWS AND FORMS, CHENEY BROTHERS BENEFIT ASSO- CIATION AND PENSION REGULATIONS	473

FORMS AND ILLUSTRATIONS

FIGURE	PAGE
Flag Raising at the Chester Shipbuilding Company	<i>Frontispiece</i>
1. Table Showing the Functions of the Service Department as Con- ceived by the Hood Rubber Company	29
2. Organization Chart of Service Activities	31
3. Diagram of the Personnel Department at the Plimpton Press	33
4. Chart Showing the Relation of Employment and Service Manager to Other Administrators	38
5. Department Classification of Industrial Relations Activities in a Large Establishment	39
6. Chart of the Functions of the Employee's Service Department in a Large Establishment	39
7. Table Showing Effect of Service Work as Administered in Concerns	431 40
8. Pictorial English Lessons with Phonetic Translations	152
9. Specimen Circulars Urging Citizenship	154, 155
10. Americanization Census Card	156
11. Nationality Survey Blank	158
12. Outline of a Course in Industrial Medicine and Public Health	185
13. Graphical Representation of Accident Frequency Rates	239
14. Diagram of the Duties of the Safety Engineer	245
15. Weekly and Monthly Record Sheet of Accidents	246
16. Organization Chart for Safety Work	249, 250
17. Examples of Slogans on Pay Envelopes	255
18. An Accident Prevention Score-board	257
19. Preliminary Suggestion Blank	264
20. Regular Suggestion Blank	265
21. Acknowledgment of Suggestion Form	266
22. Form Used in Filing Suggestions	266
23. Superintendent's Copy of Suggestion	267
24. Report Blank on Suggestions	268
25. Commissary Department Chart	280
26. Table of Food Values	289
27. Table of Industrial Benefits and Insurance Premiums	345
28. Form for Recording Labor Turnover	413-416
29. Certificate of Illness	502
30. Sample Notice of Membership in Benefit Association	503
31. Form for the Rejection of Full Membership in Benefit Association	504
32. (a) Certificate of Full Membership in Benefit Association	504
(b) Terms of Full Membership in Benefit Association	505
33. Certificate of Limited Membership in Benefit Association	505
34. Accident Report Blank	506-509
35. Accident Disability Record Card	510
36. Sickness Disability Record Card	511
37. Personal Record Card	512, 513



LABOR MAINTENANCE

CHAPTER I

NEED FOR SERVICE WORK

New Interpretation of an Old Problem

Among the most important and difficult problems in industry today, is that of so maintaining the labor forces that there may be the fewest possible number of changes in personnel, the minimum of labor friction, and the maximum of production. In the past, industrial managers have concentrated on the mechanics of production or organization; they have eagerly sought and accepted new methods of reducing wastes; but until recently they have not given sufficient time to that matter which goes to the very heart of industrial efficiency—the human problem. It was not until employers in general awakened to the startling wastage of human material and its cost to them individually, as well as to industry in general, that real attention became centered on problems of man-power and its maintenance.

Secretary William C. Redfield recently called us the "Industrial Wasters of the World," and none may gainsay that we have suffered prodigious labor losses to take place without a recognition of their existence or their consequences. But a scarcity of labor, brought on by the cessation of immigration, by the absorption of millions of productive men in the Great War, and a desire of the workers for a larger interest in their daily employment have brought us face to face with a problem which we must now solve, and solve intelligently.

There is an ominous grumbling against inefficiency with its reckless hiring and firing, and its apparently greater solicitude for machines than for men, in present-day management.

The increasing number of workers who voice this protest are asking for a share in the control of the conditions under which they work so that they may reduce the hazards to which they are subject and be enabled to live a more satisfactory life.

What are some of the facts?

Wastes Owing to Labor Turnover

The turnover of labor in industry has been and still is appallingly large. Its costs have amounted to millions of dollars. Some of the following examples have been often quoted but they are still worth noting because of their importance.

Conditions in Metal Plants

A study of twenty metal plants in the Middle West, made in December, 1914, by A. W. Grievess of the Jeffrey Manufacturing Company, revealed the fact that it was found necessary to hire 69,000 men to maintain an average of 44,000.

Magnus Alexander's Investigation

In 1915, Magnus Alexander studied the employment records of the year 1912, in twelve metal concerns where there were 37,274 workers at the beginning, and 43,971 at the end of the year. During this time 42,571 new employees were hired. The increase in the working force amounted to 6,697. The significant fact is that 35,874 persons were hired in excess of the required increase. Mr. Alexander, in *The Nation's Business*. September, 1916, said:

Theoretically, only as many persons ought to have been hired as were needed permanently to increase *the force*; *practical allowances, however, must be made to compensate* for the following factors applicable to workers generally.

It may be assumed:

1. That 1 per cent of the regular force of employees under investigation die within a year and must be replaced.

2. That 4 per cent are incapacitated for work by sickness for more than two weeks and must be replaced temporarily or permanently.

3. That 8 per cent withdraw from service from whatsoever reason or are discharged in the course of a year and must be replaced.

4. That 8 per cent of the normal force must be added for temporary work and for normal fluctuations in production.

5. That 80 per cent constitute a satisfactory efficiency of a hiring department.

It follows, therefore, that without any permanent increase in the working force, $26\frac{1}{4}$ per cent of the total force would have to be rehired during the year. The same allowances must be applied to the number of employees required to give a permanent increase in the working force.

Applying these factors to the problem in hand we find that the engagement of 13,843 persons, in addition to the 6,697 for permanent increase, or the total engagement of 20,540 persons, would have been justified to cover withdrawals by death, sickness, resignation and discharge, and to allow for production fluctuations and practical employment results. But 42,571 persons, however, were engaged, or 22,031 above the apparently necessary requirements.

	Total	New	Rehired
Group A, Highly skilled mechanics.....	2,781	2,031	750
Group B, Mechanics of ordinary skill and experience.....	3,818	2,787	1,031
Group C, Operatives requiring very little skill.....	7,388	5,393	1,995
Group D, Unskilled laborers.....	7,100	5,183	1,917
Group E, Shop clerical force.....	944	689	255
Total.....	22,031	16,083	5,948

It is obviously impossible to determine with any degree of accuracy what amount of money is represented in this unnecessary hiring of over 22,000 persons. The waste per person depends on his rate of wages, how much training he requires, and whether errors made by him during his training involve damage to high- or low-priced

tools or materials. Industrial managers who have hazarded a guess have made various estimates, ranging from \$30 to \$200 per person. In order to establish as closely as practicable the facts of the case, I divided the number of persons apparently unnecessarily hired into five groups, as given on page 5.

The expense factors of hiring and training of employees in any group are:

1. Clerical expense in hiring department.
2. Instruction of foremen and assistants.
3. Increased wear and tear of apparatus.
4. Reduced rate of production.
5. Increased amount of spoiled work.

The following table shows the values assigned to each factor in each group; due weight having been given to the lesser expense for rehired employees:

Group	Hiring	Instruction	Wear and Tear	Reduced Production	Spoiled Work	Total	Rehired Employees
A.....	\$.50	\$ 7.50	\$10.00	\$20.00	\$10.00	\$48.00	\$10.00
B.....	.50	15.00	10.00	18.00	15.00	58.50	20.00
C.....	.50	20.00	10.00	33.00	10.00	73.50	35.00
D.....	.50	2.00	1.00	5.00	.....	8.50	5.00
E.....	.50	7.50	1.00	20.00	.....	29.00	10.00

When these values are multiplied by the number of new and rehired employees in each group, the result shows that the apparently unnecessary engagement of 22,031 employees in one year in the twelve factories under investigation involved an economic waste of \$831,030. This amount will reach more than a million dollars if the reduced profits, increased overhead expenses owing to reduced production, expense of physical examination and that resulting from abnormal accident occurrence common to green workers, are taken into consideration.

Some Street Railway Figures

A study of street railway employment made by the United States Department of Labor brought out very clearly the high

labor turnover rates prevailing in that branch of the transportation industry. As reported in the *Monthly Review* for August, 1917, the average annual turnover rate for motormen in the 96 companies reporting to the department was 38.4 per cent. While the turnover in 13 companies was as low as 10 per cent, in 5 companies it was over 100 per cent. In the case of conductors the statistics were even more startling, for in 12 out of the 96 companies the turnover was 100 per cent or over.

Detroit Conditions

Analysis of the turnover figures in 57 Detroit plants, according to an address by Boyd Fisher before the Employment Managers' Association, Boston, 1917, gave an average of a little over 252 per cent a plant. This was largely owing to unusually bad labor conditions, but "the figures," says Mr. Fisher, "are not as high as they would be if they did not include the comparatively low averages of plants having employment departments, as well as plants which allow foremen to do their own hiring and firing. An analysis of plants having labor departments against those having no labor department shows that, roughly averaged, the plants having *no* employment department hired 3 men to every 2 hired by those which did have employment departments."

At the Ford Motor Company, Detroit, in 1913, 52,445 workers were hired and 50,488 left. "The stream going out of the door was almost as great as that coming in," says an official of the company. During the period of 15 months from June, 1915, to September, 1916, 25,670 entered the employ of the company and 7,031 left for various reasons. In 1916, after the installation of an employment department to increase the working force 100 men, it was necessary to hire 136 men; previous to that year, 963 men had to be hired to accomplish the same results.

Transportation

The Southern Pacific Railway Company recently estimated its annual turnover to be 150 per cent. Taking this as an average figure, says a recent number of *American Industries*, for all the railways of the country, which employ about 1,800,000 men, it is necessary to hire 2,700,000 men each year in order to maintain the 1,800,000 workers. On the assumption that it costs \$10 for each man broken in, the total cost of this labor turnover would be \$27,000,000.

Shipbuilding

At a conference of shipyard employment managers in Washington, D. C., November 9, 1917, Rear Admiral Capps made the statement that "in 64 yards, of which we have recently had accurate data, the turnover averaged 235 per cent a week or so ago, and probably was 300 per cent at the last report. In the course of a year you could well realize what this means in the volume of men passing through your works without an adequate return in labor."

"As a result of difficulties at the Hog Island Shipyard," says the report of the United States Attorney-General who investigated affairs there, "labor became so disorganized, men were shifted from job to job, and were hired and quit so frequently that the labor turnover was from 50 to 100 per cent a week."¹

Shortly after the armistice was signed, the Chief of the Naval Bureau of Yards and Docks told the House of Representatives' Naval Committee that some contractors reported a labor turnover as high as 50 per cent a week.

Cloak and Suit Trade

A recent study covering the 18 cloak and suit establishments affiliated with the Cleveland Garment Manufacturers'

¹ See the Official Bulletin of the United States, December 23, 1918.

Association, and three other shops besides, made by the United States Department of Labor, revealed a labor turnover of about 92 per cent a year for the industry.

This percentage is based on figures furnished by slightly over one-fourth of the firms studied.

One employer having an average of 50 workers had a turnover of 1,200 per cent, a condition characteristic of other small shops in the trade. The investigator attributes this condition in part to the "careless and haphazard methods used in dealing with the labor phase of their business" and states that "about seven-tenths of the labor turnover of the industry was caused by voluntary separations, to accept positions which offered better earning opportunities or more desirable conditions of employment."

Conditions in Milwaukee

A recent study of 21 establishments in Milwaukee with an average of 26,662 employees actually working, which was conducted by the Bureau of Labor Statistics and reported in the *Labor Review*, April, 1919, showed these conditions:

Discharged	3,042
Laid off	863
Entered military service.....	2,323
Quit	30,788
	<hr/>
	37,016

These are only some of the facts. The profession of employment management is new and its principles not yet fully crystallized or universally in operation; it will therefore take some time before we can have a complete audit of the costs resulting from labor turnover. We have definite figures of our losses with reference to industrial accidents, ill health, and disease, but we have not yet a complete picture of the

enormous losses which attend the unintelligent management of labor.

Factors in the Cost of Labor Turnover

Nevertheless, the costs of an unsettled working force have been measured with a fair degree of accuracy. (See Appendices A and B.) Anyone can see that it must cost a considerable amount to hire, place, train, and lose workers. Some of the elements which enter into such costs are:

1. Salaries of executives, clerks, and others on the staff of the department.
2. Cost of printing, stationery, and supplies for the department. (The cost of equipment, rent, light, and heat is a factor to be considered in certain cases.)
3. Cost of advertising for new workers, or getting in touch with sources of labor supply.
4. Cost of breaking in or training new workers. This may include the time of the executive or workman who instructs the new worker.
5. Non-production during the period of initiation.
6. Inadequate production during the period of initiation.
7. Imperfect work.
8. Repeated corrective work.
9. Retarded production of the gang, group, or department in which the new worker is placed.
10. Spoiled work.
11. Abuse of tools, machines, or equipment.
12. Cost of medical supervision.
13. Cost of accidents.
14. Loss of employees' good-will. (This is hardly measurable but should be considered.)

Cost to the employee will be:

1. Loss of new employee's time in getting adjusted.

2. Probable low starting wage for the new worker.
3. Time lost in seeking another job if employee finds present job unsatisfactory or if present job finds him unadaptable.

Subject under General Study

Far-sighted employers are now turning their attention to the problem of keeping their workers. The subject is also being studied by the federal government through its various agencies, by chambers of commerce throughout the country, by economists, by trade unionists, in fact by everyone concerned about the growing unrest and the future of industry. It is not easy to obtain a satisfactory solution, but we can at least approach the problem with the proper point of view and profit by the abundant record now available of more or less successful attempts to deal with the problem.

Plant Maintenance and Labor Stability

Labor maintenance and plant maintenance are closely related. In fact, as we shall see later, proper plant maintenance is a condition precedent to effective labor maintenance. But they are absolutely distinct as to methods of handling. Each should be managed separately. Each requires a different type of manager. One is a matter of physical conditions, of practical adjustments; the other a problem of men and human nature, of psychological adjustments.

The point should be emphasized that man-power should be treated as wisely, and with as careful planning, as the plant and its machinery. We would go further and say that the worker must receive much more attention, because he is a thinking, feeling being, a person of will and desires. In planning labor efficiency and stability the best thought in the management is required.

Co-operation of Worker and Management Necessary

The trend of the times points to the need of greater co-operation of management and men. The barriers created through mutual mistrust must be broken down. Industrial peace is impossible without respect and appreciation of each other's point of view. Managers must know their men, and men must know their managers. The conference table is the new scene of action. Employers can no longer refuse to deal with representatives of their workers. Employers cannot afford to let men nurse grievances. They must get at trouble before it starts; in other words, they must remove the causes of friction. They can do this by extending a friendly hand to the workers and by obtaining their assistance in the solution of common problems.

Now that the war is over industry must adjust itself to a changed state of mind on the part of American labor. It is a matter of psychology which must be met by insight. The aspirations of the workingman must be understood if labor and capital are to co-operate. As J. MacKenzie King puts it, "Fear must be supplanted by Faith if the breach between the worker and the employer is not to be widened and class consciousness is not to develop to the point where open warfare becomes inevitable."²

The worker has ideals. There are shades of difference but what the worker is striving for is finding expression in the programs of his various organizations here and abroad. The trend of these programs is toward more self-government in industry. Having long been denied a part in the administration of industry, and forced to work oftentimes under adverse conditions, labor feels that the time has come when its voice must be heard. Complete industrial autonomy may be a remote possibility, but we are faced with the immediate problem

² "Industry and Humanity," Houghton, Mifflin Co., 1918.

of how to secure and maintain the good-will of the worker, how to remove the sources of misunderstanding and friction between him and his employer, and how to reduce the wastes which destroy confidence in the present system of industrial management. This leads us to the subject of "welfare work" as a means of promoting the good-will and stability of labor and to the consideration of why it has failed in this respect.

CHAPTER II

SERVICE WORK—THE RIGHT FOUNDATION

“Welfare Work”—Its Failure

The idea of work for the welfare of employees is not new, for experiments were made decades ago. “Welfare work” so called, began in England as an expression of the benevolent spirit of employers. The first comprehensive efforts of the sort were made by Robert Owen in his mills at New Lanark. Holyoake remarks in his admirable “History of Co-operation”:

It is Owen who first showed masters what they might with honor and profit do by voluntary partnership with those they employed. The law did not permit participation of profit with workmen in those days. It could only be done in the form of gifts. Only patronage co-operation was possible. Mr. Owen made these in the form of education, recreation, improved dwellings, and increased wages. All these were revocable—the law forbade contracts of participation with workmen. Industrial equity bore the name of benevolence and dividends of profit reached workmen in the form of a discriminating charity.

Owen, however, was a paternalist and welfare work owes its failure to paternalism.

Workers’ Dislike of Being Patronized

Since Owen’s time there have been many well-intentioned plans for workers, but they have not met with the success expected. The failure of Pullman, Illinois, still lingers in

memory as an exhibition of what a short-sighted labor policy may result in, however kindly the spirit in which the plan is launched. In other cases, by ignoring the wishes of the workers when providing for them, considerable losses have been incurred. A widely known textile company in Rhode Island spent \$20,000 in providing a well-equipped clubhouse for its workers; but it met with little success. One of the largest corporations in this country spent over a million dollars in establishing "welfare" work—but this did not prevent a very serious and costly strike.

Organized Labor Suspicious

Organized labor has been particularly hostile to welfare work as ordinarily practiced. And why? It is not that the worker is unappreciative, but that he will not be patronized. He objects to having his initiative weakened or destroyed. Furthermore, he has had bitter experience with employers who have used welfare work as a club over him, who have conducted it for advertising purposes, or who have used it as a substitute for a fair, living wage.

He has had experience with employers who boasted of their fine plan for sick benefits, when sanitary conditions in their plants were intolerable and the object of attack by the health authorities. He remembers employers who produced and distributed finely printed, expensive pamphlets describing the "welfare" work at their mines while they robbed the employee at the "company" store because no other store existed or was allowed to exist in the town. He cannot forget the employer's "model" town with its model houses from which he was evicted without a chance to find other shelter because a foreman "had it in for him" and he was discharged from the plant. He still meets friends who lost many an hour wearily waiting for frequent shortages of pay to be adjusted while the publicity representative of the com-

pany was telling of the fine things being done for the workers' welfare.

England—"Welfare Supervisors"

Some recent developments in England illustrate very clearly the attitude of labor toward the sort of welfare work which it feels to be a means of exploitation, and indicate also what labor considers a fair basis for work of that character.

England, like the United States, is waking up to the importance of the new science of employment management. Thus far the development has been mainly confined to the work of women "welfare supervisors" in plants for women workers. The English government has indorsed the idea of welfare supervisors as a means for increasing output. Many unionists have attacked this point of view. The betterment of industrial conditions, say the unions, should be directed toward "improved health, comfort, and development" for the workers as ends in themselves, rather than using the workers as tools for more production. The ideal of the "welfare supervisor" they claim, is "docile, obedient, and machine-like women workers." "The good welfare worker is the most dangerous" because she "destroys the independence of the workers and turns them from unionism. Her responsibility to the employer makes her a more efficient kind of slave-driver." She is inclined to interfere with the private, personal affairs of the workers.

"Trade Union" Views

Another view agrees that some supervisors will effect good results in safeguarding and improving the girls' working lives; but they fear that others will come into the work with peculiar notions of "discipline," firmly convinced "till experience teaches them better, that trade unionism is of the devil."

An unusually clear statement is found in the memorandum prepared by the Joint Committee of the Woolwich Trades and Labour Council, and the Woolwich Labour Party. This paper states that:

The following conditions are essential to any scheme of welfare supervision that is to win the full confidence and support of the workers:

1. Welfare supervision must aim primarily at promoting the welfare of the workers, and not at increasing the workers' output.

2. In the interest of welfare supervision and of the workers, duties which conflict with welfare supervision must not be included in the works of welfare supervisors.

3. Welfare schemes and supervisors must be under a democratic system of control in which the workers shall have equal participation with the employers.

4. The established field of operations of trade unions and their officials must be clearly and loyally recognized by welfare schemes and supervisors.

5. Welfare supervisors should be drawn, as far as possible, from among the workers.

6. Welfare supervisors should not be appointed without preliminary training or experience, such training to include a knowledge of trade union aims and methods.

7. The remuneration and hours of all assistants in welfare supervision work (e.g., canteen workers) must be of a trade union standard.

8. If government control of welfare supervision is maintained after the war, such control must be transferred from the Ministry of Munitions to the Ministry of Labour.

We submit further that:

9. There should be the maximum of efficient co-operation among local welfare schemes, especially with regard to small factories.

10. There should be the maximum of efficient co-operation between local welfare schemes and the municipality, especially with regard to health, housing, transit, and recreation.

11. As welfare supervision will probably become a

permanent and extending element of the industrial system, there should be held in each industrial center, one or more conferences, convened by the Trade Council, or, where there is also a local labour party, both bodies jointly, for the purpose of considering the aims, scope, and methods of welfare supervision; and that such local conferences should be followed by a joint conference of the Trade Union Congress and the National Labour Party.

In short, labor does not want the worker bound to his employer by any scheme no matter how great its benefits. The worker wants his independence and that cannot be bought at any price. Labor wants no "benevolent feudalism."

On the other hand, to quote the words of Bolen in "Getting a Living," the statement cited above shows also that:

The staunchest unionists are not so unreasonable as to be hostile to the welfare institutions of the employer who asks no surrender of manly right, nor attempts to reimburse himself from wages and who, not posing as a philanthropist nor expecting gratitude, treats his men well because it is the only right way—a way equally as profitable to himself as to them or to society. There need be no trouble here if the employer's designs are those of straightforward business.

In her recent book on the subject, Miss E. Dorothea Proud defines welfare work to consist "of voluntary efforts on the part of employers to improve, within the existing industrial system, the conditions of employment in their own factories." She excludes profit-sharing and co-partnership from this definition. George M. Price in "The Modern Factory," defines welfare work as "all devices, appliances, activities, and institutions voluntarily created and maintained by employers for the purpose of improving the economic, physical, intellectual, or social conditions of the workers in their industrial establishments." With such a conception of "welfare work" organized labor has no quarrel.

A Better Name—"Service Work"

But for such activities as these the term "welfare work" is not suitable. That term will always be associated with paternalism and its abuses. The Secretary of the National Federation of Women Workers in England, states that the term "welfare" is the most unpopular word in the terminology of the factory worker. Various terms have been suggested to take its place. Some persons have suggested the term "industrial betterment work," or "mutual betterment work." These terms have their merits, but there is another even more suitable, that of "service work."

Industry has gone through marked changes since the time of Owen. We are reaching the stage when all phases of industrial enterprise will be measured in terms of service—service to the worker, to the consumer, to the public, and to society. This does not mean change in the inherent structure of industry but it does mean a changed point of view and method in industrial administration. The ideal is to make labor a constant factor in administration and operation rather than a wasteful variable. The method is, through industrial service activities, to give the subject of labor maintenance the same thoughtful consideration and action that the other large branches of administration are receiving.

Aims and Ideals

The best organized plant in the future will be the one which has a well-developed department of labor maintenance or service, conducted by a specially qualified executive. If the plant is large enough, it will have a manager of industrial relations who will guide the employment department and the service department, and supervise safety work, health work, educational and industrial training work, and all other activities concerned with the maintenance of labor at its maximum efficiency and satisfaction. Service work then will follow a

constructive course. Its results will be measured not only in dollars and cents but in terms of good-will and industrial peace.

New Conception of Employment

With the growth of new ideals in labor management has come a new interpretation of the term "employment." It no longer means simply signing up anyone who looks good for a job and firing him at will. Employment involves a new responsibility on the part of management—a responsibility which extends beyond the employment office. It means careful consideration of the conditions under which the worker is placed, to eliminate the drags on his efficiency, to study closely his desires and aspirations, to appreciate his personal problems, and to scrutinize still more closely the cause of the dissatisfaction that separates him from his job.

Successful labor maintenance is not merely a matter of "installing" service features in a plant; it is more a matter of utilizing all the possibilities for right co-operation latent in the men and women engaged in the establishment, combined with sympathetic understanding and treatment on the part of the management. The element of mutuality must always be present. There must be a partnership of spirit that is whole-hearted on both sides. The days of "hiring and firing" are over. This is the time for hiring and inspiring.

Service Work and Industrial Justice

Properly administered, service work promotes self-respect, develops the workers' initiative, and encourages democratic effort and co-operation. It removes many causes of friction by clearing up petty but not unimportant misunderstandings. It directs the energies of workers along avenues of wholesome growth, thereby making employment a common enterprise rather than a case of master and servant. It increases

the workers' personal and industrial efficiency by intelligent assistance to them in their problems. It makes up in a measure the personal contacts between employer and employee lost through big organization. No charity or philanthropy is involved. It is a matter of good business as well as a matter of "industrial justice," as some express it. It is an investment in good-will, an upbuilder of morale.

Service Work Good Business

Why it is good business is obvious. The worker who is fit and satisfied produces more, and the quality of what he produces is better. If proper medical attention is provided at the plant for minor ailments it eliminates the loss of time and of production involved in going outside for treatment. If proper food is provided at the plant at reasonable cost, the worker is better able to sustain his energies and is better fitted for the work in hand than when he is left to eat a cold lunch, often without nutritious value. If the worker is assured of continuous employment and is assisted in providing for emergencies of sickness, old age, or death, a great load of worry is removed and he may apply himself to his work with the zeal of an enthusiast. If the monotony of highly subdivided industrial operation is mitigated, reduction in the turn-over of labor takes place.

Service work builds man-power and gives it that staying quality, that permanency, which means maximum effort and minimum loss. In other words, it promotes stability.

A Constructive Force—Brings Co-operation

Talking in terms of human values, service work acts as a safety valve for feelings and emotions which seek, and must have expression. Guided constructively, a wonderful power for good may be developed. The success and happiness of a person lie in having wholesome interest in and outside

of vocation. Man cannot express himself in work when that work is often of deadly monotony. He must have self-expression in some social, communal manner; for man is a social animal. Some are more social than others and possess qualities of leadership which, recognized and rightly developed, mean industrial peace and the accession to industry of competent, promising executive material.

The right kind of service work builds co-operation of management and worker. Rather than dictate what activities there shall be for the workers, the wise manager consults his men and gets from them a frank opinion of the desirability of proposed activities. He may make suggestions which will help them form their opinion, and if they disagree he may try to convince them of his point of view. But he should never go ahead with an important plan simply because he thinks the workers ought to have it, unless it is something which is aimed to bring the physical conditions of the plant up to standard.

No service work is worthy of the name if it does not encourage self-directed activities. The more activities of this kind there are, the slighter the danger of friction and dissatisfaction. These may be a mutual benefit association, a co-operative plan for the purchase of the necessities of life, a savings club, or some other useful enterprise. Worked out in this way, the employees would be glad to avail themselves of the wise counsel and assistance of the experienced employer.

Conditions of Work Must Be Good

Let us now turn to the fundamental principles. Full recognition must be given to the fact that *proper working conditions are the basis of successful labor management and maintenance.* Industrial success requires certain standards. These include proper sanitary arrangements, conditions of heat, light, ventilation, safety, and health. When these are

not met, legislation seeks to enforce a minimum. If legislation is difficult to obtain, or if it seems more expedient to the men, resort will be had to economic pressure to bring about desired reform. Intelligent service work goes beyond this minimum and often sets a standard much higher than the law demands; or it even anticipates legislation, as several large corporations have done.

No service work is of value if it does not rest upon sound work conditions. We cannot expect a man to be satisfied with his job or give best productive results if he has to use an unsanitary toilet; or if toilet facilities are inadequate; or if the ventilation of the shop is poor and he is poisoned by dangerous gases; or the shop is underheated as a result of his efforts to get good air; or if the workroom is overheated and the worker's brain is dulled; or if the occupation is hazardous, and inadequate safeguards are provided.

The matter is clearly put by D. H. MacGregor in his "Evolution of Industry":

Much of what is now called "social betterment" or "model employment" implies rather the removal of unfavorable conditions through the gift of specially favorable conditions. The mere fact that such schemes attracted great public attention in the beginning of the twentieth century is a serious reflection upon existing standards, and is to be read in the light of the criticism of fifty years hence no less than in the spirit of sympathy with its purposes at present.

Wages Must Be Fair

A study of labor turnover statistics indicates the fact that the largest number of voluntary resignations of workers is due to dissatisfaction with wages. This is true even in concerns which have excellently organized service work, and which are known for their fair treatment. The high cost of living and the usual burden of financial obligations borne by the industrial worker make it imperative for him to seek

and obtain the highest pay for his labor. And that pay must be sufficient to support him and his family in reasonable comfort, supply them with the education and recreation necessary for all, keep them in good health, and help safeguard them against want should anything prevent the wage-earner from continuing his work.

The wage question cannot be ignored in considering how labor may be stabilized. A fair wage is the starting point of service work; it is the keystone of a sound industrial structure. Many an employer's effort to improve his workers' condition has met with bitter disappointment through failure to observe this fundamental truth. William Howard Taft said recently:

Too many employers seek to justify failure to raise wages by pointing to their welfare work for their employees. This is of a paternal character and impresses the workers with the idea that they are being looked after as wards and not treated as men capable of exercising independent discretion as to their welfare. They are apt to give the employees the idea that it is a generous concession they are making out of the goodness of their hearts and that they are not merely yielding a right for a *quid pro quo* for what they receive.¹

Properly Co-ordinated Effort

Granted that a fair wage prevails, other elements which make for stability of labor still remain. We have spoken of sound working conditions, intelligent handling of men—which means fair treatment—appreciation of the point of view of the worker, absence of paternalism, encouragement of initiative, self-directed social activities, and development of co-operative activity between employer and employee. We have spoken, too, of careful study of the entire problem of labor maintenance by a functionalized department and the formulation

¹ *Washington Post*, November 26, 1918, page 3.

of a definite, basic policy to be modified from time to time according to circumstances. Properly organized service work co-ordinates all efforts of workers and employer in a common program. Properly organized service work allows no haphazard planning; it imbues every activity with a well-defined, carefully planned common purpose; it brings out the best in the individual and makes group action constructive.

Such are the elements of the new conception of labor maintenance. How this conception may be made concrete, how a sound practice may be developed, this book endeavors to illustrate.

CHAPTER III

THE EMPLOYEES' SERVICE DEPARTMENT—ITS RELATION TO OTHER DEPARTMENTS

Proper Name for the Department

We have seen in the last chapter the defects in what is familiarly known as "welfare work" and what are the ideals of the newer "service work." To carry out those ideals is the particular duty of what might be called the "employees' service department."

The matter of name, indeed, may well be considered for a moment. Those who developed the special War Emergency Training Course in Employment Management at the University of Rochester, New York, made a careful survey of firms throughout the country, such survey showing that "service" or "service and employment" department were the only titles at all widely used instead of "employment department."

The following memorandum on the subject, prepared by the training school and representing many viewpoints, may here be quoted:

The joint committee establishing the Training Courses in Employment Management after investigation and consideration of some 14 names and titles, unanimously voted to use the words "service department" in connection with employment management, and the following points were made:

The establishment of industrial service departments in the shipping board and ordnance departments having in mind the same broad functions intended to be covered by employment management was a strong reason for use of the title "service department" in particular industries.

"Service" is a word of large significance and meaning to

general managers because of its acknowledged importance in connection with sales. The use of the words thus in connection with factory and employees would tend to enhance the standing and importance of such a department and to give it large scope.

"Service" is the best word for approach to employees. It implies that it exists as a matter of right and obligation. It is free from any taint of philanthropy or paternalism.

The use of the word "service" makes it easy to substitute the words "service" and "personal service" for the word "welfare" which latter word is held undesirable and objectionable. "Personal service" work is about the only good suggestion of a title offered to take the place of "welfare" work.

The word "employment" conveys too limited a conception of the scope and activities desired. It tends to narrow the work to hiring only.

The word "service" suggests a broad field and can easily cover the broadest conception of the work.

The word "service" gives to the man in charge the right viewpoint and approach in all details of his work.

"Service" has been accepted by the leaders in American business administration as a fundamental idea essential to success in business. The root conception of success in leadership or administration is that the executive serves others. This significance attaching to the word "service" gives to the word the power of winning the minds of men of large affairs and suggesting that the department bearing this title, and the movement designated by it is a matter of large import and much above any mere process of "hiring and firing."

The word conveys the idea of ministry and belongs to a high conception of management in its relation to labor and of the functions of a staff intermediating between the two.

It is suggested that the word may be introduced naturally by degrees.

1. Employment department (usually limited in scope).
2. Employment and service department.
3. Service and employment department.

4. Service department, or
5. If desired in combinations, such as "industrial service," "factory service," etc.

Many objections have been offered to other titles but to the word "service department" only one, namely, that in some industries (automobile particularly) there are service departments dealing with sales and customers. This, however, constitutes no valid objection because one deals with the outside and the other with the inside. The one could easily be designated as "sales service" and would not be confused. In fact, "service" departments as contemplated exist already in the automobile industry.

The objection instanced in the last paragraph may be avoided by adopting the term used in the title of the present chapter, "The Employees' Service Department."

Service Department Includes Employment

As to one important point we may note that the memorandum is not so clear as it should be—namely, that what is called the service department should include the functions of the employment department. Such is the practice in several concerns—particularly the Bethlehem Shipbuilding Corporation. A similar scheme is that of the Hood Rubber Company, Watertown, Massachusetts, a chart of which is here reproduced. (See Figure 1.)

One Plan—Executive Board

An interesting form of organization of service activities is that of L. Candee and Company, New Haven, Connecticut, manufacturers of rubber goods. This arrangement provides for committees for all important plant activities, including a foremen's co-operative association which meets weekly to discuss methods of co-operation and plant improvement. An advisory board, made up of executives including the general

SERVICE MANAGER.				
FUNCTION of Service Department: TO CREATE AN EFFICIENT, HEALTHY, STABLE BODY OF WORKMEN.				
EMPLOYMENT.	HEALTH.	SAFETY AND SANITATION.	EDUCATION.	GENERAL SERVICE.
FUNCTIONS.				
<ol style="list-style-type: none"> 1. Knowledge of Sources of Supply. 2. Knowledge of Factory Requirements. 3. Knowledge of Hours of Work. 4. Knowledge of Work Environment. 5. Knowledge of Work Environment. 6. Proper selection of applicants by— <ol style="list-style-type: none"> (a) Careful interview. (b) Knowledge of past record. (c) Knowledge of Physical Condition. (d) Knowledge of job requirements. 7. General instructions to new employees. 8. Service Record. 9. Investigation of Absences. 10. Transfers and Promotions. 11. Interview all leaving employees. 12. To check up foreman's resignation. 13. To insure an impartial hearing. 14. Keep adequate individual records. 15. Keep detailed turnover records. 16. Furnish State and Federal Reports. 17. To act as cleaning house for general Employment Work. 	<ol style="list-style-type: none"> 1. Physical examination of Applicants. 2. Physical examination of present employees. 3. Periodic reexamination of defectives. 4. Periodic reexamination of employees exposed to industrial hazards. 5. Advise Employment Department on placement of defectives. 6. Treatment of Medical cases. 7. Treatment of Surgical and Accident cases. 8. Treatment of Dental cases. 9. Prevention of communicable diseases and epidemics. 10. Co-operation with Employment Department in investigating absences. 11. Furnishing Employment Department with data concerning employees who are leaving on account of ill health. 12. Keep adequate examination and treatment records. 13. Furnish statistics pertaining to health. 	<ol style="list-style-type: none"> 1. Reduction of accidents by— <ol style="list-style-type: none"> (a) Education. (b) Safeguarding Hazards. (c) Reducing up of accidents. 2. Frequent Factory inspection, by— <ol style="list-style-type: none"> (a) Safety Engineer. (b) Members of Safety Committee. 3. Report Accidents to proper authorities. 4. Co-operate with Employment and Health Departments in shortening periods of disability. 5. Facilitate compensation payments. 6. Keep record of records and statistics. 7. Supervision of records. 8. Drinking water. 9. Ventilation. 10. Lighting. 11. Tents and Locker rooms. 12. Janitor and matron service. 13. General Sanitary Conditions. 14. Elimination of industrial disease hazards. 15. General supervision of working conditions. 	<ol style="list-style-type: none"> 1. Bulletin Board information. 2. General instructions to employees. 3. Circulation of current Magazines. 4. Instructions in— <ol style="list-style-type: none"> (a) Hygiene. (b) Care of eyes. (c) Care of teeth. 5. Factory Publication. 6. Girls' War Relief Club. 7. Organization of Recreation. 8. Amusement Campaign. 	<ol style="list-style-type: none"> 1. Supply Store for Employees. (Groceries sold at cost). 2. Farm. 3. (Vegetables raised and sold at cost). 4. Restaurant Service. 5. Supervision of Housing. 6. Supervision of Recreational Activities. 7. Supervision of Benefit Plan covering Sickness, Accident and Death. 8. Supervision of superannuated employees. 9. Supervision of Thrift Activities. 10. Local advice to employees. 11. Not under Service Organization.

Prepared by
Robert S. Quayby, M.D.
Industrial Hygienist, Rubber Co.
Watertown, Mass.

Figure 1. Table Showing the Functions of the Service Department as conceived by the Hood Rubber Company. The modern tendency is to separate employment from other personnel activities and to designate the latter as "service work."

superintendent who presides at meetings, heads the structure. This board meets weekly and considers all problems. An executive board, consisting of the officers of each committee, and headed by the employment manager, acts as a clearing-house for all service activities. This board meets once a month and makes recommendations which are passed upon by the advisory board, and if approved, are then handled by the employment manager in connection with the proper committee.

Some of the committees have functions which call for special notice. The restaurant committee is made up of women representatives of the various departments. It meets once a month or more often if necessary, and acts upon complaints, suggestions, rules, policies of management, and other matters related to the work. Each member of the committee wears a special pin.

The publicity and promotion committee handles all publicity in the way of education, pictures, promotion of activities, and municipal development. The head of this committee was made a member of the local chamber of commerce by the company so that he and the committee could keep in close contact with the affairs of the community.

A glance at the chart of the organization (Figure 2) will show the relation of the committees to each other. One point worth noting is that each committee has its own secretary who keeps careful record of things discussed and accomplished. Copies of the minutes of meetings are sent to the employment manager who heads the executive board.

Employment and Service Department

In a small concern it is better to have an "employment and service" department which divides its functions of employment and employees' service into separate co-ordinate groups operating under one general head, than to use the term "service department" to cover these groups.

Many small plants have their service head and employment head report separately to the superintendent but this practice, in the opinion of the author, is wasteful; it hinders co-ordination. The work of employment and that of service are so closely related that neither can function to best advantage by itself. There must be one executive who co-ordinates these

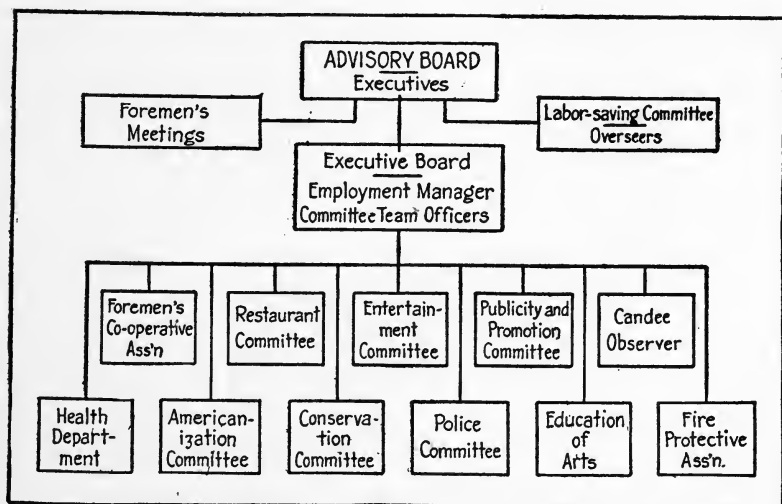


Figure 2. Organization Chart of Service Activities

Showing the relations of the various committees to each other. (Form of organization of L. Candee and Company.)

two branches of activity and relates them properly to the management.

The best plan of organization provides for one person in charge of both employment and service, assisted by a capable executive who handles employment and another who directs service.

Plimpton Press Plan

At the Plimpton Press, Norwood, Massachusetts, there is a personnel department which has five divisions called:

1. Employment
2. Maintenance
3. Training
4. Research
5. Community relations

The plan of organization can readily be seen by consulting Figure 3. The maintenance division corresponds to what is called the employees' service department in this volume. Employment work and service work are concomitant activities and, while closely connected in purpose, should be distinguished in name at least.

Terminology

If activities are described in general terms, standards to be uniformly observed cannot be established without difficulty; and accordingly progress will be retarded. As in other new fields of endeavor, terms must be made specific to the greatest degree possible. The profession of employment management has not yet developed a terminology that is in general use and the lack of a satisfactory terminology is making for confusion. Some use the term "service" to cover all personnel and employment work, while others use it in a limited sense to mean a special phase of personnel activity. It is in the latter sense that the term is used in this book.

What "Employment" Should Imply

The term "employment" as used in connection with a department should imply the entire technique of hiring, rating, assignment, transfer, promotion, resignation, and discharge of employees. It should involve study and adjustment of wage rates, records of service, development of sources of labor supply, work with foremen, leading men, and other employing executives. It should distinctly involve close connection with

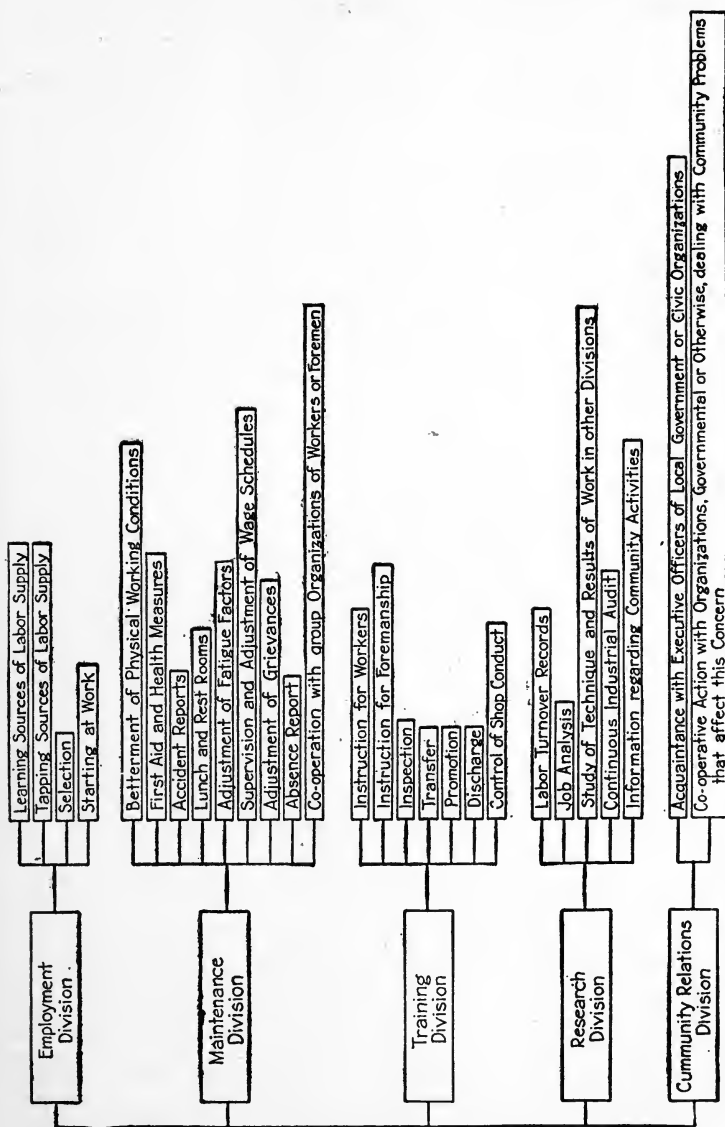


Figure 3. Diagram of the Personnel Department at the Plimpton Press

The work of the personnel department includes employment in addition to the recognized service activities. (Reproduced through courtesy of Lewis Manufacturing Company, Boston, and Richard B. Gregg)

the discussion and settlement of policies governing the employment of labor. It means study and consideration of all elements involved in the contract of employment, including the cost of living, labor legislation, and judicial decisions.

What "Service" Should Imply

The term "service" was explained in the previous chapter but it will help again to emphasize its connotation. The employees' service department should concern itself with all matters affecting the general welfare of employees in so far as those matters have connection with stabilizing the labor employed and making it more efficient.

What the Department Should Be

Such a department should act as a clearing-house for information as to employee activities. It should consider measures affecting the personnel of the entire organization and opportunities for educational and industrial advancement of workers. Its activities should include work for safety, health, and proper sanitation, education and training of employees. The department should encourage self-directed social activities among the workers and tactfully should subordinate itself to such activities. In fact the success of the employees' service department may fairly be judged by the number of self-conducted employee activities in the concern. Finally, the employees' service department should co-operate with the employment department in acting as a friend and counselor to the workers. Thus the service department will reflect the spirit of the concern. It will also help the workers to find self-expression fully and legitimately, and most important of all, it will go toward insuring that co-operation between management and men without which no industrial enterprise may succeed in the future.

In Large Concerns—Department of Industrial Relations

In concerns of sufficient size the modern tendency seems to be directed towards the creation of a general department of industrial relations under which there are separate divisions or sections devoted to employment, service, safety, health, education and training, and other activities. This is the arrangement adopted by the B. F. Goodrich Rubber Company, the Bethlehem Shipbuilding Corporation, the American International Shipbuilding Corporation, the Youngstown Sheet Tube Company, the Merchant Shipbuilding Corporation, the International Harvester Company, and others.

At the International Harvester Company there is an industrial relations department which has its center in the general office. The activities of the department include employment and labor, safety, casualty settlement, women's work, medical and sanitation work, and other activities which are related. The manager of industrial relations reports to the manager of manufacturing. The employment managers at branch plants report to the plant superintendent, and indirectly to the manager of industrial relations.

The head of the industrial relations department should be an executive who ranks equally with the head of the most important departments, such recognition involving standing, authority, salary, active participation in the shaping of labor policies, and in the adjustment of differences between the company and its workers. Otherwise it will be difficult to bring about the necessary co-operation of superintendents and foremen who are unfamiliar with or unsympathetic to the new ideas of industrial management.

So important is this function becoming that large concerns like the Bethlehem Steel Corporation are assigning the duties of this job to men who report directly to the president of the concern. They are generally given the title of "Assistant to the President."

Sometimes Called "Labor Department"

At the Goodyear Tire and Rubber Company, where about 25,000 are employed, the department is called the "labor department" and, according to the management, is "a means employed to keep the factory manager in touch with the workmen in the factory. It aims to see that all workmen get a square deal, and to provide an opportunity for a fair hearing for everyone. It also aims to keep in touch with the general labor situation in the factory, in order to foresee and prevent unrest and discontentment and to feel the pulse of the labor situation generally, in Akron and throughout the country."

The functions of the labor department cover:

1. General supervision of working conditions
2. Employment, discharge, and transfer
3. Labor adjustments
4. Legal counsel
5. Plant police
6. Fire department
7. Accident prevention
8. Accident compensation
9. Factory mail
10. Insurance plan
11. Health supervision
12. Emergency hospitals
13. Factory library
14. Factory newspaper
15. Educational work
16. Alien division
17. Restaurant service
18. Retirement awards
19. Suggestion system
20. Housing supervision and financial supervision
21. Bureau of athletics

All these functions extend to the subsidiary plants of the company. "There is no welfare department," says the company. "All activities are on a businesslike, self-supporting basis. The principles followed are to help those who help themselves and to attract men of judgment to become associated with the company."

Sometimes—"Personnel Department"

At the Thomas A. Edison plant at Orange, New Jersey, what is known as the "personnel service department" is a department of the administrative service division. The personnel department reports to the chairman of the board of directors. The principal functions of this department are five:

1. Employment
2. Adjustment
3. Betterment
4. Safety
5. Health

The "betterment" section deals with personnel insurance, plant newspaper, a suggestion system, and other service features.

Under Whom Shall the Department Function?

In organizing an employees' service department or division the question generally arises: To whom should the head of the department report? In a small plant it is best to have the head of the service work report to the employment chief who in turn is responsible to the general manager or superintendent. Another good plan is to have the person in charge of the employment and service department report directly to the vice-president or other head of the concern who can devote the greater portion of his time to employee relations.

General Manager

At any rate, in order that the head of the employment and service department may have the necessary authority his department should function under the official who is superior to all departments, that is, someone very close to the highest active executive, if not the highest executive himself. Figure 4 represents the modern idea of relationship.

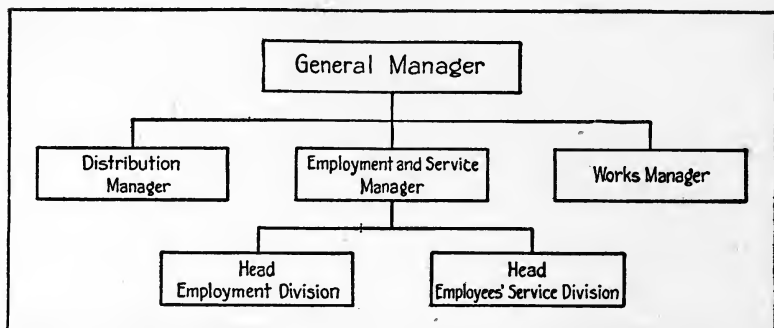


Figure 4. Chart Showing the Relation of Employment and Service Manager to Other Administrators

In order to carry on the work of the service department successfully, the recognized standing of the employment and service manager should be equal to that of other department executives.

Works Manager

Some argue that the works manager should supervise the work of the employees' service department head, but in the author's opinion this is wrong in principle. The works manager should in all cases be kept in close touch with the work of the employees' service department but the general manager should be the one to set policies and see that they are carried out. The works manager should be left free to devote his energies to production. An exception to this now current in industrial practice appears in the safety work (and in some

instances, trade training work) of the plant. Considering the works manager as one engaged in supervision of production

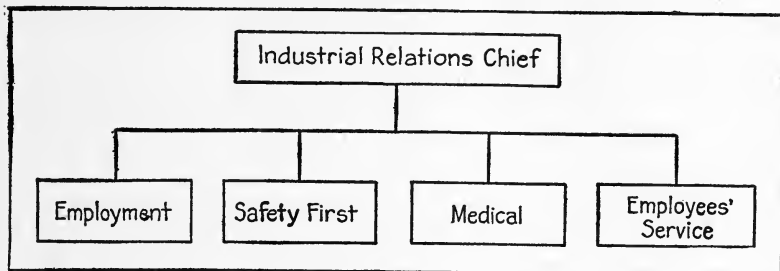


Figure 5. Departmental Classification of Industrial Relations Activities in a Large Establishment

and thus the operating head, some concerns have the safety superior or training superior directly responsible to the works

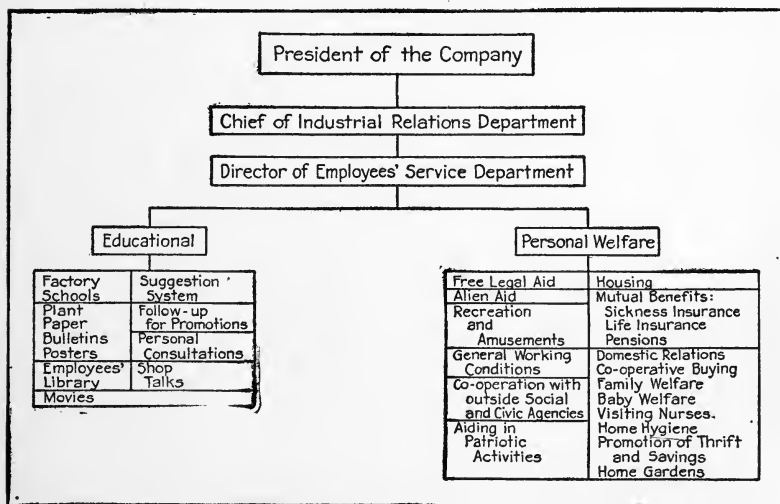


Figure 6. Chart of the Functions of the Employee's Service Department in a Large Establishment

Health and safety activities are not included, as this work is assigned to separate departments.

manager so far as operation is concerned, but policies are controlled by the general manager. This, perhaps, may be the more practical method under present conditions or until industrial managers can "sell" the new idea to their assistants.

Industry	Number of Establishments	Number of Employees	Welfare Work Administered by		Establishments Having		Establishments Reporting as to Effect of Welfare Work upon			
			Employer Alone	Employer and Employees Jointly	Outside Agencies Co-operating	Welfare Secretary Employed	Time Lost		Stability of Force	
							Improvement	No Change	Improvement	No Change
Automobiles.....	9	95,683	6	3	3	3	5	1	2	2
Boots and shoes....	5	23,930	1	4	1	1	3	...	3	...
Chemicals and allied products.....	7	13,539	2	5	3	3	4	1	3	1
Clothing and furnishings.....	13	19,498	3	10	8	10	6	...	6	...
Electrical supplies..	5	51,040	1	4	2	1	2	1	1	2
Explosives.....	5	36,030	2	3	4	4	2	...	2	...
Fine machines and instruments.....	8	25,326	2	6	2	2	3	...	3	...
Food products.....	15	17,638	12	3	6	3	8	...	5	1
Foundries and machine shops.....	49	143,882	28	21	12	16	18	6	18	8
Gas and electric light and power.....	10	27,102	1	9	1	2	2	2	2	1
Iron and steel.....	40	213,143	33	7	12	9	15	2	9	4
Mining, coal.....	12	34,807	7	5	4	1	6	3	3	6
Mining, other than coal.....	12	25,448	5	7	5	2	6	...	7	...
Offices.....	9	13,814	2	7	...	3	2	1	1	1
Paper and paper goods.....	7	9,174	3	4	3	2	6	...	3	1
Printing and publishing.....	10	12,769	5	5	3	4	4	...	4	...
Railroads, electric..	17	60,642	6	11	3	4	6	2	5	2
Railroads, steam...	10	393,583	4	6	8	1	2	1	2	1
Rubber and composition goods.....	9	42,847	5	4	3	6	4	1	3	...
Stores.....	47	125,148	17	30	20	30	18	2	10	3
Telegraph and telephone.....	15	166,447	14	1	2	8	2	...	3	...
Textiles.....	60	71,221	41	19	31	16	21	2	22	2
Other industries....	57	138,793	31	26	18	10	15	4	19	3
Total.....	431	1,661,504	231	200	154	141	160	29	136	38

¹ Not including 1 establishment, not reported.

² Not including 2 establishments, not reported.

³ Individual plants of 1 corporation have been counted as separate establishments.

⁴ Not including 5 establishments, not reported.

Figure 7. Table Showing Effect of Service Work as Administered in 431 Concerns

Industrial Relations Manager

In very large concerns, like those previously described in this chapter, where a department of industrial relations is created, the employees' service division or section will report directly to the industrial relations manager. Figures 5 and 6, prepared by Ernest C. Gould, describe the form of organization generally adopted. It will be noticed that the functions of safety and health are not included in the employees' service division but have their own head who reports directly to the industrial relations chief. This is the plan which must necessarily exist in a large concern.

An interesting table (Figure 7) has been prepared by the United States Department of Labor showing how service work is administered in 431 concerns surveyed; also showing the effect of service activities upon time lost and the stability of the working force.

CHAPTER IV

INTERNAL ORGANIZATION OF THE SERVICE DEPARTMENT

Size of the Department

The size of the department will depend upon the funds available for service work, the number employed, and the extent of activities planned, as well as the physical space available for the department's use. Here a word of caution is necessary. Too often the mistake is made of starting service work with a splurge and attempting to encompass every possible activity with little thought of the difficulties involved. Service work is sometimes overdone in the heat of enthusiasm of a new executive who wants to make a "showing." So many new activities are started at once that the worker soon finds himself in the position of an observer at a three-ring circus; he cannot concentrate his attention on any one thing. Soon the novelty of the new stunts wears off, his enthusiasm wanes and no distinct impression has been made.

Service work should begin in a small way and with a small staff of paid workers whose duty is merely that of nominal supervision. The real responsibility for initiation and management of service activities should be placed upon the plant workers. The more the workers themselves can be induced to take part the lower will be the costs of administration and the more satisfactory will be the results.

Office Organization—System

One thing which the central authority can contribute is orderly operation of the department activities, however

initiated. The conduct of the office should be as systematic and efficient as in any well-regulated business office. Everything should be kept neat and clean. All desks should be kept clear of finished matter, which should be filed or despatched to the proper person. The tendency is to be careless and allow old papers, magazines, and newspapers to litter up the desks. It should be an inflexible rule that every desk in the office must be cleared off before the workday is over and all mail of that day answered unless further action on it is necessary. Suitable desk trays should be provided for papers according to their classification. No papers of an official nature should be allowed to leave the office. If papers must be taken out, a memorandum signed by the person who receives them and stating the character of the paper and date when removed, should be placed in the appropriate place in the file. Observance of this suggestion will prevent the loss of papers and lessen the time-wasting effort to locate them.

Each paper that comes into the office should be dated and, if possible, stamped with the time of its arrival. All outgoing correspondence should be signed by the head of the department except in special cases. This will avoid the confusion incident to persons in the office conducting correspondence involving the business of the department without knowledge of the managing authority.

Filing and Record

All papers should be filed by subjects. Important correspondence should be alphabetically filed with cross-filed reference by subject. For example: All reports and plans on housing should be filed under that head; but should an important letter come in regarding these plans or reports or otherwise have close connection with the subject, that letter would be filed according to the name of the writer or corporation—let us say the Universal Construction Company—and

a special sheet would be made out referring to this correspondence as follows, this sheet to be filed under "Housing":

Date:.....

From: Universal Construction Company
Subject: Housing
Note: New plans and estimates will be ready by.....

An excellent method for keeping record of daily events and achievements is the daily diary. Such a diary makes it easy to give reports of the department for stated periods.

A complete list of the personnel of the department should be kept in the office of the head of the department. This list should note the particular job of each individual and in a sentence or two describe the function performed by him.

The Executive Always Accessible

The office of the executive head should always be open to everyone. A certain amount of privacy here is necessary but the danger of closeting oneself in a sanctum sanctorum should be avoided. The workmen should feel that they can reach the head of the service department at any time and for this reason it will be well for the head to set aside definite office hours for meeting workers. Too much time and patience are lost when a man leaves his job to see the service head and finding him out has to return at some other time. It would be well for the head to take his lunch at an hour different from the regular lunch hour of the concern in order to enable workers to see him without loss of their time and that of the company.

Conferences

At frequent intervals, preferably weekly, the head of the department should hold conferences of his assistants and other

important members of the personnel on problems and matters affecting their work. The subjects for discussion should be carefully prepared beforehand and due notice given to those participating. The advantages of the conference idea are so great that to neglect this simple method of bringing all minds in the department together to discuss and agree upon a common purpose and method is to fail as an executive. Conferences help to make workers think about their jobs, they clarify matters of policy, stimulate enthusiasm, and develop efficient methods of work. They save the time it would take the executive to explain the same thing to each member of his staff personally, and promote co-ordination and teamwork among department workers.

Special Studies and Reports

In addition to conferences the employees' service department should plan for special studies and reports by members of the staff. Such subjects might include housing, transportation, naturalization, safety, sources of friction, opportunities for education and trade training, and others of similar nature.

It should be the duty of every service department to prepare a monthly report of its activity, summarizing events and plans under appropriate headings so that an executive can, at a glance, know what the department is doing. Such reports should be simple, concise statements of fact. Managers are impatient with the flowery, emotional outbursts which sometimes come to them. A good form of report would be the following:

Report for (date),

I. Summary of Activity

- A. Health
- B. Safety
- C. Educational

- D. Social
- E. Special

II. Summary of Problems (Enumerated)

III. Suggestions and Recommendations (Enumerated)

Copies of these reports should be sent to the general manager, the works manager or superintendent, the employment manager, and such other officials as the general manager may designate. Two copies should remain on file in the office.

Keeping in Touch with Other Concerns

One of the first steps of the department should be to send a request to as many concerns as possible to be placed on their mailing lists for copies of their employees' newspaper or magazine. Many valuable suggestions may be obtained in this way. Often the management will hesitate in undertaking a particular activity for fear it will not work but if it is seen that the idea has been tried and has succeeded, the experiment will often be made. A service superintendent should not, however, fall into the common error of believing that because a plan worked well elsewhere it will work with his plant where conditions may be entirely different and preclude the possibility of success. On the other hand, it is even more dangerous to assume an attitude of hidebound conservatism. There is a happy mean based upon the use of common sense and knowledge of the workers' desires.

Planning Activities

Often the company executives' conception of the employees' service department is that it is a dumping ground for matters which concern no other department directly, or that it is little more than an entertainment bureau. This is owing to a lack of understanding of the principles involved in service

work both by the management and by those in charge of service work. No change may be expected in this point of view until a well-defined program is developed and its purposes appreciated by all concerned.

The department should not only undertake certain activities but it should also lay out a plan of proposed future work. This plan should be discussed with the management and with others interested, but should not be announced until actually in operation. Too many service heads fall into the mistake of positively announcing plans which are only on paper and which, owing to unforeseen conditions, must later be changed or canceled. Promise and performance must come together, if the confidence of the management and workers is to be secured and maintained.

Making New Workers Feel at Home

In planning department activities considerable attention should be given to making new workers feel at home. This is vital. The treatment and first impression one receives upon entering a new enterprise are never forgotten. It is also specially important to remember that labor turnover statistics generally bring out the fact clearly that the greatest turnover exists among those employed less than six months. The following figures from a concern employing over 10,000 are typical. Of 2,574 who left the plant in a particular month—

74	or	2.9%	were employed for	2 weeks or less
352	"	13.7	" "	from 2 to 4 weeks
1,442	"	36.0	" "	" 1 " 3 months
511	"	19.8	" "	" 3 " 6 "
137	"	5.3	" "	" 6 " 9 "
58	"	2.3	" "	" 9 " 12 "

In another plant which employs about 5,000 the figures for the same month in which the above-mentioned condi-

tions occurred show that out of a total number of 959 terminations—

195	or	20.3%	were	employed	for	2 weeks or less
323	"	33.6	"	"	from	2 to 4 weeks
239	"	25.0	"	"	"	1 " 3 months
114	"	12.0	"	"	"	3 " 6 "
50	"	5.2	"	"	"	6 " 9 "
20	"	2.0	"	"	"	9 " 12 "

The remaining 18 men were employed for 1 to 3 years.

Intelligent effort at reducing this instability will therefore consider the conditions surrounding the entrance of the new employee to his job.

Instructions for "Interviews"

The author, in the course of his work as employment advisor to several concerns, established the following outline of instruction as part of the standard practice for the employment and service departments. Results were highly gratifying. The men employed felt that the company was taking a personal interest in making them at home and did not merely throw them into the shop with the usual curt directions.

Instruction is given to all interviewers in the employment department, assisted by representatives of the service department, to inform all applicants clearly regarding:

1. Rate of wages paid, bonus plans, and other wage information.
2. Hours of work.
3. Opportunities for advancement and something about service features. A booklet describing service features and other conditions of employment should be given to the applicant.
4. Necessity for steady attendance.
5. Housing possibilities.
6. Opportunities for training.

According to this plan, at the completion of the interview and the signing up of the new employee, the conductor (used in large firms to conduct new employees to the shops) will take the man to the appropriate department and there:

1. Introduce him to the foreman or other superior.
2. Introduce him to some of the men with whom he is to be associated in the work.
3. Point out the location of toilets, locker, and other matter provided for his convenience.

About ten days or two weeks later a member of the service department should follow the man up and acquaint him with the service activities which are being conducted for his benefit. Where possible the employment department should interview the worker at this time to learn how he is getting along. In this manner dissatisfaction on the part of employees may be determined at its inception and the heart of the labor turnover problem reached.

Greeting New Employees—The Wrong Way

It is the common experience of workmen who look for jobs with certain plants to find the first person who greets them to be a policeman who is on special duty in the employment department and whose function it is to maintain order in the waiting-room (if one exists) or to conduct new workers to their jobs in the plant after they have been hired. Where this is the practice the new worker hardly gets a good impression of the plant and often through the rough treatment he receives at the hands of these officers, becomes soured at employers in general and at his new concern in particular. This is a phase of the process of hiring which is neglected by many employers who sincerely want to do the right thing and perhaps spend much money in organizing their employment and service work.

Greeting Employees—The Right Way

Some employers have overcome this difficulty by taking particular pains to secure the right man to be the first point of contact between the man looking for a job and the management which offers it to him. One such establishment uses its men who have been employed for some time but owing to defective eyesight are unable to continue on their regular work. These men take care of those who are waiting to be interviewed and conduct those who are hired to their foremen. Instead of a gruff custodian of order who leads a man to his job as if he were under arrest, we have a man who would say to the new fellow-worker—"This is a pretty fine place to work in; I've been here fifteen years; you get a square deal here"—and make him at home with the conditions of his new job.

Utilizing the Rulebook

The employee's rulebook offers one good method of welcoming the new worker. On the first pages of the book should be a welcoming letter to the new employee signed by the president of the company, and bearing his signature in facsimile.

The rulebook should be made of permanent value to the worker by printing a two-year calendar on the back cover, and on the inside of the front cover a list of terms used in the business of the company, with definitions. A few pages of the booklet, which should be of convenient pocket size, might well be devoted to practical information which would help the worker in his trade. Then the employee would find the rulebook of value enough to carry it with him constantly. The usual rulebook is given a single reading, more or less hasty, and thrown away. A company wastes an opportunity if it does not have a helpful and interesting rulebook.

The plant newspaper (see Chapter XX) offers another

good way of welcoming the new worker. An excellent example is shown in the following passage from *Center Punch* published by the American Multigraph Company, Cleveland, Ohio.

When you go into a country or a strange place you are grateful to the man who extends to you the hand of fellowship, to the one who makes you feel at home.

Remember the new employees on the job. They are strangers within our gates. Especially at this time when we are increasing our force are we afforded an opportunity of showing new employees that we are interested in them and that we are anxious for them to be satisfied. A little effort on your part can make the newcomers feel at home and will show them the feeling of co-operation you have helped to build up. You can do more in five minutes to establish the right spirit while their impressions are forming than you can in many days after they have formed their opinions of you and your company.

In case the newcomers are foreigners, there is even greater obligation to treat them as guests, and make them feel welcome.

It is the privilege of every American at this time to make the strangers from other lands feel that we appreciate their help in winning this war.

Treat them with the same courtesy and kindness that you would desire if *you* were a stranger in a foreign country.

Your personal contact with foreign fellow-workers can
HELP TO UNITE ALL RACES IN AMERICA to win this war.

"Follow-Up" Men

Some plants have a "follow-up" man who looks after the new employee and makes sure that he is contented. As long as this is done without anything smacking of the paternal it is a splendid effort and fruitful in results. Another plan is to have a "reception committee" of workers or one man designated in each department or shop to meet new employees and acquaint them with the surroundings. Such work would

best be done by volunteers who act in this capacity on company time. Here again warning is necessary against overdoing the matter. To be oversolicitous about the new employee is likely to bring a decidedly unfavorable reaction.

Other Activities Outlined

Among the activities which generally come within the scope of an employment and service department are the following: The list is included here for the sake of completeness and for the suggestions it may have for those interested in labor maintenance in all its phases.

I. Employment Division

1. Development of sources of labor supply and co-operation.
2. Job analysis.
3. Selection of applicants.
4. Assignment to jobs.
5. Transfers.
6. Promotion.
7. Discharge.
8. Job adjustment.
9. Handling absences.
10. Employment records and statistics.
11. Foremen conferences on employment problems.
12. Reports of grievances.
13. Wage studies and adjustments.
14. Studies of cost of living, standardization of work, economic movements.
15. Co-operation with other employment heads in developing the technique of employment management.
16. Co-operation with service division in assisting workers in their problems.
17. Shop committees.

II. Service Division

A. Health

1. First-aid clinic.

2. Hospital.
3. Dental clinic.
4. Physical examination of applicants for employment.
5. Periodic examination of employees.
6. General medical assistance to employees.
7. Visiting nurse.
8. Oculist.
9. Control of sanitary conditions in and about the plant.
10. Co-operation with local and national health organizations.
11. Studies in occupational diseases and methods of improving the health of employees.
12. First-aid instruction.
13. Convalescent homes.
14. Restrooms.

B. Safety promotion

1. Organized inspection and reports on conditions.
2. Introducing safeguards against injury.
3. Safety instruction and education.
4. Organization and development of safety and suggestion committees.
5. Fire drills and organizations of fire prevention work.
6. Records and statistics.

C. Education

1. Technical and trade training.
2. Instruction in business practice.
3. Americanization.
4. Literary clubs and classes.
5. Co-operation with general, trade, and technical institutions.
6. Library work.
7. Shop talks.
8. Foremen training.

D. Housing

1. Registry of rooms, apartments, and houses available to employees.
2. Bulletins of information.
3. Supervision of company houses.

4. Improvement of housing standards in the community.
 5. Assistance in new housing developments.
- E. Social Activities
1. Athletics.
 2. Dramatics.
 3. Musical work (band, orchestra, chorus, glee club, etc.).
 4. Dancing.
 5. Outing and picnics.
 6. Vacation camps.
 7. Community enterprises (pageants, festivals, etc.).
 8. Clubhouse.
- F. Special Activities
1. Restaurant or lunchroom.
 2. Employee's newspaper or magazine.
 3. Group insurance.
 4. Sickness insurance.
 5. Mutual benefit associations.
 6. Pension funds.
 7. Legal aid.
 8. Profit-sharing.
 9. Co-operative buying.
 10. Home gardening.
 11. Day nursery.
 12. Employee's bank, thrift clubs, savings and loan associations, etc.
 13. Transportation information and arrangements.
 14. Employees' committees.
 15. Training in domestic science.

The Budget—The Department's Estimate

Making up a budget is often one of the exasperating tasks of an executive. When a department has been in operation for some time it is a fairly simple matter to take the budget for the previous year, add the items which mean new expenditures, and make an estimate of the amount required by such new items. At the first organization of the department, when previous records are not available, it will be necessary:

1. To make a complete outline of proposed activities which will require an appropriation, and then make careful estimates of the cost of such activities.

2. To itemize the staff requirements of the department personnel indicating how much each is to receive in salary or wages. Salaries and wages are usually determined by the management or by the prevailing rates paid by plants of the same size having similar departments. The salaries of service directors or managers range from \$1,200 to \$5,000 per year depending upon the scope of activities engaged in, the training and experience of the person in charge of such activities, and the degree of enlightenment of the management.

3. To determine what rent, if any, is to be charged to the department, and the amount of furniture and supplies to be arranged for. Generally the cost of furniture and supplies, heat, light, etc., are figured out by the cost accounting department or such other department as concerns itself with such items.

The Employer's Estimate

Aside from the estimates which the head of the service work makes, the employer himself has to decide how much money he will spend for such activity. Little information is available as to the costs. The United States Department of Labor not long ago attempted to ascertain what such costs are. According to the few replies received, the expense varied from a fraction of 1 per cent to 5 per cent of the total annual pay-roll. The higher percentages included the costs of pension or insurance plans or maintenance of large clubhouses. The conclusion arrived at by the investigation was that an expenditure of about 2 per cent of the annual pay-roll would provide for a program of fair proportions.¹

¹ For further information on the subject the reader is referred to "Employment Management," by Daniel Bloomfield, H. W. Wilson Company, New York, pages 441-8.

CHAPTER V

THE SERVICE MANAGER

A First-Rate Executive Needed

Successful service work is not a matter of chance. Nor is it something that succeeds by planless, haphazard procedure. If it does not receive the careful consideration of able executives it had better not be attempted.

It has been demonstrated that social activities thrive when the rank and file have a large share in their administration. Service work in an industry stands a far better chance of success if it represents a co-operative effort on the part of management and employees. With this new conception of the motive which should underlie service to employees, a change has come in the specifications for those who are to take charge of it. There have always been highly competent men and women who have carried on the service enterprises of industry. But not in every case has there been a sufficiently high standard of personal equipment, nor has sufficient responsibility been placed on the service agent for the best results to be possible. Today, however, any establishment which has a proper respect for the importance of social service work recognizes the importance of placing in charge the best possible man or woman, and adding power enough to enable this executive to function to the best advantage.

There can be no question that service work is vitally important both to output and to sound industrial relations. No sentimental reasons are needed to justify it. Properly managed and supported service departments contribute positively to business success. Moreover, it is not a question of charity

or benevolent spirit. Workers do not want charity; level-headed employers know that good sense and just dealing count for more than philanthropic emotions. Both parties to the industrial bargain keep their self-respect when the relations are frank, fair, and businesslike. Whatever promotes health, and comfort, whatever secures absence of strain, and satisfaction, and stimulates hope, ambition, and intelligence is so much clear gain for industry. Whatever retards or impairs these things is a foe to production and right relations. Modern service departments are organized in the light of this truth, and the service director must be competent to conduct his work with due regard for its meaning.

General Qualifications

The various types of service activities indicated in the previous chapter will be taken up in detail in succeeding chapters. At this point it will be helpful to discuss briefly the general qualifications of the service manager or superintendent. As in so many other branches of industrial activity, the man—or the woman—is more important than the plan.

Needless to say, character is the chief requisite in a service manager. Everyone will naturally look to him for humane, intelligent, and disinterested service. What he is will count for even more than what he does. Nothing is more hopeful as a sign of industrial advance than the fact that the capable men and women who have thus far been drawn into various forms of philanthropic work feel a call now to use their abilities and experience in connection with some industrial organization, and that industrial managers are seeking out just such workers for employment within their plants.

Social service is a great specialty by itself. Its literature is enormous. The leaders in this field are men and women of international fame and their following is world wide. The service director must know something of the work that these

leaders have done and the principles they stand for, in order that he may not only profit by their achievements, but also be sufficiently initiated to know how to apply, so far as practicable, the best that has been done in social service work. The service manager in order to handle industrial service work intelligently, should have accurate knowledge of:

1. The views and conditions of labor throughout the country.
2. The problems of unemployment and the best thought on the methods of meeting these problems.
3. The problems of health and sanitation in their relation to the community.
4. Immigration in all its phases and particularly its effects upon industry, our institutions, the community.
5. Social legislation.
6. The problems of recreational work.
7. The problems of charity and its administration.
8. The problems centering about good government—city, state, and national.
9. Organized social and industrial movements, particularly the latter.
10. The work of local social agencies.
11. Industrial history, which will throw considerable light on the development of present-day industrial movements.
12. The subject of employment management, for here he will find one practical application of principles developed in the field of social service.
13. The organization of industrial concerns.
14. Methods of compensation.
15. The principles underlying vocational education and guidance.

Training and Experience

In addition to a wide, accurate knowledge of the field, training and experience are requisites. While the training must include a good deal that from the viewpoint of industrial work seems theoretical, nevertheless theory gets the mind in the habit of thinking through a problem in the light of general principles. The man or woman who is college trained, who is well read in economic and social literature, who has had experience in dealing with people, will usually succeed in the work of the service manager. Experience may be had in hundreds of institutions, public and private. If to this training is added experience both as a wage-earner and as a minor executive in a business or industrial concern, the practical side will have been joined to the theoretical, and the general equipment will be exactly what is needed.

Personality

Personality is a great asset in all work which calls for contact with others. The bond of sympathy works wonders. Lacking this, contact must perforce be superficial, and much of the value of service work is lost.

A certain plant had a service superintendent who had excellent training and some valuable experience in public work before he came to his job. He possessed a good mind and was able to plan things out clearly and well. But he could not gain the confidence of the men. The explanation was found in his personality. He lacked sympathy and ability to project himself so that he could see things from the standpoint of the worker. When forming plans he rarely consulted the workers and when he did consult them he would engage in hair-splitting as to his point of view. He knew what the men ought to have much better than they did, he argued, because of his previous experience, but he did not realize that he had a new situation before him.

Judgment

But a sympathetic personality, and the capacity to enter the moods of others are not enough—the quality of good judgment must be added. The service director needs a good deal of seasoned wisdom in the situations that arise. Good sense is worth more than kindly impulse. Good sense and sympathy together make the right combination for the helpful and successful service director.

One of many cases demanding good judgment and tact was that of the service director of a plant which was planning to institute a system of physical examinations of employees. Considerable opposition to any scheme of such examinations was voiced by individual employees and by the leaders of the union to which many of them belonged. When he learned this the service director called a conference of representatives of the men and talked over with them frankly and at length the pros and cons of the situation. The men were finally convinced that it was to their particular advantage to have physical examinations instituted and the plan went through without opposition. But it was owing only to the judgment and tact of the service director that the scheme succeeded.

Possibilities

There is no limit to the good that a manager of the right type can do. He becomes one of the most valuable assets of the plant personnel. Records from plants which have enjoyed the services of a successful manager prove the importance of service work conducted by men and women of peculiar fitness.

Discussing this point in a letter to the author, Ernest C. Gould, an industrial engineer who has had large experience with industrial relations departments, insists that the director of employees' service work should be a natural leader of men.

He must possess an unlimited amount of altruism, sympathy, and patience. He should have a broad education and

considerable business experience. He should be energetic and mingle freely with the various elements comprising the company organization and that of the community. His personal character should be the highest.

Where to Find the Man

It is evident from the qualifications noted that a good service department director is not always easy to find. There seems to be no specific field from which service managers can be drawn, but many successful directors have been developed from lawyers, educators, Y. M. C. A. workers, etc. Inasmuch as modern service management requires training as long continued and intensive in its way as that of a profession, it is beginning to receive the prestige and remuneration that a recognized profession enjoys. As a result many ambitious persons of more than ordinary ability have taken up the work. Another incentive for such persons is the fact that service work often leads to more lucrative positions. For instance, when a vacancy occurs in the position of labor manager or manager of industrial relations, the logical person to be promoted is the service manager. The possibility of such advancement reacts in turn upon the standard set for the service manager, for promotion is possible only when the service manager possesses high qualifications.

Correlation of the Employment and Service Departments

The work of the service department is so closely bound up with the activities of the employment department that it is difficult to mark the line of cleavage. In most concerns employing not more than 3,000 persons or so, the usual practice is to combine the two groups of activities into a single department—the employment and service department—under a single head. One division of that department has special charge of employment and another division special charge of

service. If the plant is not large enough for a department of such size, the manager of the employment and service department may himself direct all personnel and service work.

Duties of the Employment Manager

In a concern which maintains a separate employment department the employment manager devotes most of his time to problems of hiring the workers, and to their rating, transfer, promotion, and release from employment. He must also handle wage problems and determine the worker's fitness for the job. His task, especially where the concern is large and the working force widely varied, is exacting and requires much time and thought. If he is to do his best, he needs the constant assistance and co-operation of the service manager.

Duties of the Service Manager

As discussed in this book, the work of the service manager consists of the supervision of such plant activities with reference to employees as do not come within the province of the employment department. Although the duties of the service director are varied, they are far from being indefinite. They fall into two groups, both of which are highly important in building up plant spirit and satisfaction among employees: (1) the organized activities, (2) the informal, intimate activities, often of a confidential and rather personal nature. In general, the organized activities of the service department have been outlined in the preceding chapter. For obvious reasons, the informal activities do not readily admit of classification but their importance will be readily understood.

It is interesting in this connection to note that some leaders in the new field of industrial medicine would turn over the entire personnel organization to a specially trained physician. In addition to medical training, however, it is essential that

the physician have the qualifications of training and experience necessary for successful service managership.

The English Viewpoint

The experience of England with "welfare supervisors," already referred to, has much of significance for the American movement of personnel and employment management. When women came into industry in increasing numbers during the war it was found desirable to introduce "welfare supervision" into industrial plants. The conception of "welfare supervisor" approached somewhat the American idea of employment and service manager; but in the first place the emphasis has been more directly placed on "maintaining a healthy staff of workers" and helping maintain satisfactory conditions for work, and in the second place the English supervisors are women. Their duties consist of:

1. Hiring or keeping in touch with the hiring of new workers.
2. Selection of foremen.
3. Investigation of dismissals and resignations.
4. Investigation of cases of sickness and lost time as well as of poor output owing to ill health.

B. Seebohm Rowntree, a most progressive employer, who during the war headed the Welfare Department of the British government, suggested that the women welfare supervisors should have a general supervision over working conditions—especially for night work—and over canteens and restrooms, and that they should co-operate with the plant doctor and nurse. He also suggested that they should keep posted on the wages received, investigate complaints by the workers, and help maintain discipline.

In the organization recommended by the Munitions Commission, the welfare supervisor was made directly responsible

to the general manager. A definite position for the welfare supervisor on the managerial staff in connection with the labor department of the factory was also recommended. In this way the supervisor would be able to refer all matters calling for attention direct to the general manager and would be "regarded by him as a liaison between him and the various departments dealing with the women employees."

Such a conception of the duties of a supervising official would be directly applicable to the American plant employing women entirely or in large numbers.

Duties Inside and Outside the Factory

The Ministry of Munitions grouped the needs of the workers with which the supervisor was to concern herself as follows:

1. Needs within the factory.
2. Needs outside the factory.

Inside Supervision of Working Conditions

Under the heading of "needs within the factory" comes the matter of supervision of working conditions. The welfare supervisor was made responsible for:

1. General behavior of women and girls inside the factory. Responsibility for the technical side of the work was left to the technical staff.
2. Transfer. If the health of a woman was affected by the particular process on which she was at work, the welfare supervisor, after consultation with the foreman concerned, could suggest to the management the possibility of transfer of the woman to work more suitable to her condition.
3. Night supervision. It was recommended that the welfare supervisor have a deputy for night work "and should

occasionally visit the factory at night to see that satisfactory conditions are maintained."

4. Dismissal. The welfare supervisor should be consulted with regard to the dismissal of women and girls.

5. The maintenance of health conditions. From the point of view of the health of the female employees, the welfare supervisor should see to the general cleanliness, ventilation, and warmth of the factory and keep the management informed of the results of her observations.

Canteens for Workers¹

With reference to canteens for the workers it was suggested that, unless the factory was a small one, it would hardly be possible for the welfare supervisor to manage the canteen. The management would probably prefer to entrust that to a person of special knowledge. In consultation with the manager of the canteen the welfare supervisor should make sure of the following points:

1. That the canteen provide suitable food for the women workers, rapidly and punctually served.
2. That canteen facilities are provided when necessary for the women before they begin work so that no one need start work without having taken food.
3. That the canteen is as restful and as comfortable as possible so that it serves the double purpose of providing rest as well as food.

Ambulance, Restroom, and First Aid

The commission recommended that while the welfare supervisor was not responsible for actually attending to accidents, except in small factories, she should work in close co-operation with the factory doctor and nurses and should:

¹ Much attention was given to this subject by the British government during the war.

1. Help in the selection of the nurses, who should be recognized as belonging to the welfare staff.
2. See that nurses should carry out their work promptly and that the workers were not kept waiting long before they received attention.
3. Supervise all records of accidents and illness in the ambulance room.
4. Keep in close touch with all cases of serious accident or illness. "It would be useful if she were allowed to be kept in touch with the compensation department inside the factory with a view to advising on any cases of hardship that may arise."

Cloakrooms and Sanitary Conveniences

In the matter of supervision of cloakrooms and sanitary conveniences the welfare supervisor should be held responsible for:

1. General cleanliness
2. Prevention of loitering
3. Prevention of pilfering

"The management will decide what staff is necessary to assist her; and it should be her duty to report to the management on these matters."

Outside the Factory

The welfare supervisor should keep in touch, preferably through the management, with all outside agencies responsible for:

1. Housing
2. Transit facilities
3. Sickness and maternity cases
4. Recreation
5. Day nurseries

Personal Records of Employees

The commission also urged that personal records of every woman employee be kept as a means of helping the welfare supervisor in her work, especially in order that the worker's health might be inferred from them. Records of special significance are those of:

1. Wages. "The welfare supervisor could then watch the rise and fall of wages earned by individual employees from the point of view that a steady fall in earnings may be the first indication of an impending breakdown in health."

2. Lost time. Such records could furnish information as to sickness, inadequate transit, and urgent domestic duties which might not otherwise be discovered.

3. Accident and sickness. As sickness makes a worker less apprehensive of danger and is conducive to carelessness, a marked increase in accident frequency might indicate a poor standard of health. Records of sickness would serve to call the attention of the welfare supervisor to cases which might otherwise be overlooked.

The Future of Service Work

It is obvious from all that has been presented in this chapter on the service manager that a new and important function in industrial administration has come into being. Much of what the modern service director does has, of course, been done before. But it is characteristic of modern management to take familiar activities and to give them a new foundation of aim, place, and responsibility.

This is the case with service work. There is little connected with it that is wholly new in detail. But the work is being more clearly defined and a new underlying purpose is being emphasized. This marks an advance. As one result, a new demand has developed for trained and competent persons to take charge of such work.

Industrial management always gains as it raises the standards of qualifications of those who have to administer its various departments. It suffers when standards are low. The coming of capable service directors in growing numbers is one of the hopeful advances which modern industrial administration is making.

CHAPTER VI

BUILDING UP A PLANT SPIRIT

The Problem of Morale

One of the most fundamental problems in a large establishment has to do with what may be termed "plant spirit." The success or failure of an enterprise depends on the state of mind of the industrial worker. Industrial management has given too little thought to this aspect of industry. One still hears the hoary remark: "We're not in business for our health. Why should we bother about what the men think? We are interested only in what they produce."

Yet production is far more a matter of men than of machinery; and if managers are interested in production, they must of necessity be interested in men. Maintenance of labor so that it can perform efficiently with the least waste is a primary factor in production. If industrial management is not interested in its men, its men will not be interested in what they are given to do; and when a man's heart is not in his work, his work will not be good.

It is this very indifference which hampers production, and which has helped bring about class hatred and conflict. It is mainly the same lack of vision which has created the so-called labor problem.

Plant Spirit—Right and Wrong

Perhaps the question of plant spirit—the sort that makes for contentment among the workers, and increased production, or the sort that makes for just the reverse—can best be explained by citing an example of each kind.

A certain corporation has a number of plants manufacturing the same product. Two of these plants are located in similar neighborhoods peopled by foreign-born workers. The physical equipment in both plants is identical, and the rate of wages paid is the same. Neighborhood competition for labor in both places apparently differs very little. Yet in one of these plants the labor turnover is extremely high, while in the other the turnover is one of the lowest that any of the plants of this concern can boast.

What is the explanation? Plant spirit. The superintendent of the plant with the high labor turnover is egotistic, selfish, and tyrannical; and because of these things, and his unjust methods, he has lost not only his men, but some of his best foremen. The superintendent of the other plant takes as much pride in the justice with which his men are treated as he does in the excellent business methods he uses in operating the plant.

These two plants are as different in spirit as they are alike in physical equipment. That is the only explanation for the difference in labor turnover. In one plant, what little spirit exists is one of discontent and internal strife. In the other plant the spirit is of the right sort; and its results are contented workers, low labor turnover, and increased production.

What Plant Spirit Is

Let us consider what plant spirit really is. To begin with, it is more than a state of mind. It is as tangible as the good-will of a going concern. It depends upon many material as well as psychological elements. But it cannot be imposed from without; it must come from within the plant; it must be spontaneous. The remainder of this chapter is devoted to an analysis of the component parts of this plant spirit.

1. Right Working Conditions

Plant spirit rests upon working conditions which are right. This means bright, cleanly surroundings, good ventilation, proper lighting, modern sanitary conveniences, proper tools and equipment. It also means reasonable hours of work and avoidance of overfatigue. It involves the payment of adequate wages—that is, wages which more than cover the minimum of subsistence.

2. Elimination of Fear and Uncertainty

Plant spirit rests upon the elimination of fear and uncertainty—fear of wrongful discharge, of unemployment, of incapacity to earn a livelihood through injury, ill-health, or old age. So we find employers placing restrictions about the power of discharge that it may not be exercised in haste. Instead of allowing a foreman to “fire on the spot,” modern methods require some other officer to approve the dismissal of a worker before it becomes effective. This is to make sure that no injustice is done the worker. His dismissal from one department does not necessarily mean complete discharge. He may prove valuable in another department where he is better suited to the work, or where personal adjustment may be more satisfactory. A worker once hired is an investment. The presumption is that he was employed because of his peculiar fitness. It is the business of the company to make the man's services an asset. Of course mistakes will be made, but helpful supervision will reduce the number of errors.

Limiting the “Power of Discharge”

At the Firestone Tire and Rubber Company, Akron, Ohio, the power of absolute discharge is vested only in the superintendent of labor. Department managers, foremen, and assistant foremen have only the power of suspension, which in no case may exceed the period of one week. In the ma-

jority of cases there, suspension operates for a day or two, or the employee is referred to the superintendent of labor. All the facts in the case reach the superintendent of labor before the worker arrives and it is the duty of this official to study them before making up his judgment. The motive, of course, is to prevent the losses of time, money, and good-will which follow unjustifiable discharges.

The general superintendent of the above-mentioned company makes some interesting comments on the operation of this plan:

We believe that an employee is an asset to the company and that there is some place, particularly in a large organization like our own, where this employee is of value. We are simply trying to find the proper niche in our organization where this certain employee can be of greatest service. We feel that this is a good thing for the employee as well as the company.

Some of our department managers, foremen, and assistant foremen felt at the time this subject was under consideration, that it would detract from their control over the employees under them. This anxiety has been proved groundless in our judgment.

We believe that our employees feel that they are not going to be subject to the prejudice of those immediately and directly over them, but will be given a fair hearing by one who is unprejudiced—in our particular case, our superintendent of labor.

We believe that the relations between our men and the foreman over them is much better under our present system than it was prior to our instituting the same.

A Plan for Regulating Discharges

For the benefit of employers who wish to adopt a plan for regulating discharges, the author presents the following outline which may be modified to suit the conditions of a particular plant.

OUTLINE OF PLAN FOR SUSPENSION, DISCHARGE, AND TRANSFER OF EMPLOYEES

I. Terminations. All terminations must pass through the employment department. (Foremen are not to discharge except in cases of serious breach of discipline.)

A. Suspension:

1. If for some reason a foreman wishes to drop a worker or remove him from his department he will notify the worker that he is suspended and is to report to the employment manager. (A simple form card can be used for this purpose.)
2. When the suspended worker reports to the employment manager he is told his case will be taken up at once and he will be notified of the result of discussion of the case with his foreman.
3. It may be decided that the worker go back to his foreman and have another trial; or he may be transferred to another department, or he may be discharged. The period of suspension should be limited to a day or two; the shorter it is, the less likelihood of losing good workers. A worker improperly suspended should receive his regular pay for the period of the suspension. When circumstances permit, it might be well to have a committee representing the employees and the management equally, to decide on cases of suspension and discharge.

B. Discharge. Where there is a serious breach of discipline or other conduct warranting immediate severance of the employee's connection with the company, the foreman may discharge the offending employee, who will report at once to the employment department which will approve and record his termination slip.

This method will uphold discipline of the foreman and will enable the management to consider each case on its individual merits so that a discharge is always based upon just consideration.

The discharge will then be the last resort. Workers

will readily see that they are given every opportunity to make good and that if they are expelled it is for a good reason, after careful consideration of the case by impartial authorities.

- II. Transfers. Recommendations for transfers should be made to the employment department before the transfer takes place unless the transfer means a promotion. All statistics as to transfers should be placed in the hands of the employment department for its turnover records.

The author has installed this plan in several large industrial undertakings, and it has everywhere worked out with success. It has helped the worker realize that he is getting a square deal and has aided considerably in removing the mistrust of each other by foreman and worker. Its great advantage is that it has preserved the disciplinary power of the foreman and at the same time adjusted a condition which made for bitter feeling. The decrease in labor turnover accompanying the operation of the plan in each plant was immediately evident.

Employees Must Be Treated Fairly

The next principle, that employees must be treated fairly, is really a corollary of the one just developed. A business venture not based on the "square deal" cannot hope to have labor stability. Nothing so fans the flames of ill-will as injustice. Men will go to extremes when their rights have been invaded or ignored. Some employers have deluded themselves into the belief that a system of espionage must be maintained in their plants in order to maintain peace; it is no wonder that when the same employers have instituted elaborate "welfare work" their efforts have met with little enthusiasm.

One such employer found himself with a costly strike on his hands when his "spotters" were discovered. He abolished his spies and began anew with the determination to take his

workers into his confidence. He asked that his men select a works committee to represent each shop and advise with the management on all mutual matters. The effects were immediate. The spirit of the workers changed. Instead of gloom, suspicion, and unrest, an atmosphere of cheerfulness and satisfaction developed.

Favoritism on the part of foremen and sub-bosses is one of the elements which disturb a sound plant spirit. In industrial relations as in all other human relations, fair play is basic to mutual respect. No one should have a place in the organization except on his merits. Nepotism, job-selling, job-holding because of personal friendship, partiality shown to workers of certain religious creeds or to members of fraternal associations, are negative efforts at labor maintenance. They breed suspicion and discontent. They destroy good-will.

Confidence depends upon deeds. The management must show by its acts that it is fair. It must evidence its good faith by meeting its workers half-way, and by insisting that its staff do likewise.

3. The "Other Fellow's Point of View"

So the next principle calls for appreciation of the other fellow's point of view. Men must know each other. What Clarence H. Howard, President of the Commonwealth Steel Company, calls the "Fellowship Ideal" must pervade the organization. And in his words that means "The adoption of the principle of Right as the unerring law of action—the passion to serve the Right in all relations of life."

It is the aim of fellowship to take the word "toil" out of the language and substitute the word "service."

The Commonwealth idea is that all men working together for a common purpose in the business are co-workers. All parts of the structure must work in harmony. Business is

to be looked upon as service, not only to the public, but of each part of the business to every other part.

Fellowship always figures how much it can share with the men, not how little it can give them. In fellowship, authority is a position of trust and not one of personal power and aggrandizement. Fellowship is strict in acknowledging and rewarding merit and discountenancing poor work. It is not an easy boss but it is a fair one.

The successful manager of men *knows his men*. He knows and appreciates what they are reading, thinking, and talking about. If they are foreign born he knows something about their customs and ideals. He gains their respect by his knowledge of their mother country. He inspires them with the desire to "make good." This relationship is the secret of good-will.

He will not make the mistake which a certain executive of a large manufacturing plant made in seeking to develop a good spirit among his men. He thought he would "go the rounds" on the day before Christmas to extend the greetings of the season to each employee. His motives were good and he was sincere in his effort. But he knew very few of the employees and few knew him except by name. It was impossible for him to achieve his object because the whole thing looked artificial, if not ludicrous.

4. Self-Help Through Mutual Respect

The next factor may be called the development of self-help through mutual respect and co-operation. Mutual respect is based on the factors discussed in this chapter, but mainly upon mutual understanding. Industrial friction is too often the result, in part at least, of misunderstanding.

Business success is a result of team play, where all forces are joined in a common purpose, where management and men are impelled by motives which are commonly understood.

Each side must appreciate the problems of the other, and instead of suspicions, antagonisms, indifference, or intolerance, there must be mutual confidence and active co-operation. No matter how humble a worker's job may be, his place in the organization is important. Management cannot afford to be indifferent to the desires and aspirations of the subordinate workers. From that group many a leader has been developed. And if this group is to function constructively it must receive constructive attention.

A Specific Instance of the Development of Self-Help

To take a specific example: The Jones Manufacturing Company has a department in which the majority of workers are unskilled. The superintendent expresses his contempt for the men in this department because they seem to care for nothing but more wages and to "show them a lesson" he will "fire on the spot" any fellow who asks for a more substantial return for his labor. He is disturbed because he cannot get the men to work harder and the more he berates these fellows through his foremen and sub-bosses the more exasperating is their lack of response. Soon there is an undercurrent of unrest. The men are sullen and there is a flare-up here and there when harsh words are applied by the bosses. Suddenly notice comes to the superintendent that the men will go out on strike within twenty-four hours unless their "demands" are met. He rages at the men and refuses to see their committee. The strike takes place and feeling becomes bitter. Pickets appear and the work of the company is seriously crippled. Finally the strike is settled upon a compromise of terms laid down by the workers. The president of the company, much disturbed about the matter, looks into the conditions causing the strike and finds no grievance that is in itself really important, but an accumulation of petty troubles which should never have been allowed to go on unheeded.

Then the president brings in a new superintendent, a man of broad sympathies and a keen judge of men. This new manager arranges to meet the workers personally and provides opportunity for them to come to him directly with any grievance they may have. He treats every worker man-fashion, and makes it his business to encourage the men to develop themselves through schools, self-governing clubs, and frequent addresses and lectures on matters of interest. He insists that foremen and subexecutives must practice courtesy at all times. He makes it clear that he will brook no arbitrary conduct on the part of his operating staff; and at the same time lets the men know that he expects of them the same spirit of fairness and co-operation, which he is extending to them.

It is not long before a marked change in the morale of the men is evident. They work with a new vigor and there are fewer terminations from the department. Respect replaces mistrust and there is peace and production.

5. Opportunities for Advancement

The fifth principle requires provision of opportunity for initiative and growth. Where employment is not continuous, where there is no opportunity for promotion or encouragement of effort, little may be expected in the way of loyalty. The reader is no doubt familiar with plants where these factors, and some others mentioned in this chapter, are responsible for a demoralized work force. There can be no esprit de corps where jobs are temporary, where the management is constantly shifting men around, where the workers feel they may at any moment be thrown out of employment, where there is no attempt to search out special merit and encourage it and where vacancies are filled from the outside instead of building from within. Instances are numerous where men have put their hearts and souls into their work with good results only to wake up some day and find new men thrust

upon the organization and chances for advancement made more remote than ever. When a man's spirit is broken, when he feels himself a cog in a ruthless machine which ignores faithful service and offers no incentive for enthusiastic effort how can we expect anything resembling plant spirit?

A wise management will study itself and offer a definite system of promotions and advancement to those who show meritorious service. This means carefully worked out job analyses and wage payments, service records that are comprehensive histories of workers and their capabilities, as well as intelligent appreciation of the psychological factors governing human conduct.

Not only must there be room for initiative and growth within the organization as such but the personal development of workers through their own social activities must be encouraged. The problem of the worker's leisure is more than a personal problem; it is a community problem, and the employer can help in its solution. The intelligent use of leisure makes for sound citizenship, without which industry cannot maintain itself. The specialization of processes in large-scale production produces a monotony which must be offset by human enterprises that allow mental and social development. Employee activities foster healthy plant spirit. Further consideration of this factor will be found in succeeding chapters.

6. Enthusiasm of Management

The sixth principle is enthusiasm on the part of the management.

An organization generally reflects the spirit of its management. A gloomy, pessimistic outlook by the management cannot produce a cordial spirit. Many a plant has suffered from this. Such a disposition on the part of the management breeds distrust, suspicion, and hard feelings. Progress in right relations between management and men under such circum-

stances becomes more and more impossible. "All our modern industrial social problems," says Gerald Stanley Lee, "are problems of gearing people up." Successful leadership in business and industry carries with it never-failing enthusiasm, the enthusiasm that inspires confidence, action, and good-will. When Joseph W. Powell passed through the shops of the great shipyard of which he was president, the men would warm up to his cordial greeting and take a new interest in their work, for "Joe" Powell's enthusiasm is irresistible. When "Charlie" Schwab talked to the boys at the Hog Island Shipyard at a time when the rivet-driving records were going down there was an immediate reaction and the figures of production took a decided leap upwards. And so with many concerns throughout the country. Men are inspired to do their best because the management believes in its men, in its work, and in action. Selling its product is not the only function of a business; it must "sell" itself to its workers, it must inspire confidence, and through its example spread enthusiasm so that it reaches every worker.

The Part of the Foreman

Paramount in importance is the co-operation of foremen in making labor maintenance work a success. Too often this factor is ignored, but effort is well spent in trying to win their interest and support. Let us here emphasize the fact that the foreman is the key man in the structure of labor maintenance. By his attitude he may build or destroy the work of months and years. He is the one in closest contact with the workers. To them he represents the management. Practically their entire time is spent under his close supervision. It is highly essential, therefore, that the foreman should act as agent for the service department as well as for the company in general.

The foreman's chief job is to maintain and increase produc-

tion. But no matter how intolerant he may be of "new-fangled" ideas, no matter how busy he may be with the material elements which concern output, he can be made to realize how much his production record depends upon a contented labor force. It needs nothing but common sense to tell him that he has nothing to lose and everything to gain by appreciation of the human factors which govern successful man-power control. As a rule, however, he needs to be impressed with the importance of his share in reducing the wastes following instability of labor. The truth is that his responsibility in labor maintenance work cannot be shirked or evaded if he would maintain his own job.

New Conception of the Foreman's Job

The new science of employment management, having probed into the causes of labor instability, presents facts which are a formidable indictment of present methods of foreman control. A new conception of the foreman's job has arisen. A greater realization of the powers for good or evil which lie in the foremen's hands has made industrial leaders realize that the foreman of the future must be a manager of men before he can qualify for a permanent place in the organization of an industrial concern.

The old type of foreman will soon be extinct. In the struggle for survival of the fit he will go down and his place will be taken by a man who respects men; who will treat them as he himself wishes to be treated; who will realize that the "ignorant foreigner" has a soul, has ideals, and often has an education which would put those in a more fortunate place in industry to shame. The foreman of today knows that the worker is sensitive and rarely forgets insults and unjust rebukes; that the "unthinking masses" have produced many of the world's greatest men; that if through intelligent treatment the proper chord is struck within them, it will evoke

an energy and spirit which will go far towards steadying the plant's labor forces.

The Stupid Foreman a Handicap

"This is the day of democracies, the day of tolerations, of adjustments and readjustments," says Charles M. Schwab. Self-respecting workers will not stand for arbitrary methods. Examine the labor turnover reports of almost any plant and you will find the greatest number of terminations are made of the worker's own accord. The figures of a large new enterprise, which in its methods is far ahead of other similar concerns, show the following percentages of voluntary resignations of those whose services terminated during the months from May to September, 1918.

May	43.1	per cent
June	52.7	" "
July	53.1	" "
August	64.6	" "
September	72.0	" "

The conditions in an older concern during the period from October, 1917 to May, 1918, are even more startling.

In October	79.6%	of those	terminated	left of	their own	accord
" November	93.9	"	"	"	"	"
" December	90.6	"	"	"	"	"
" January	84.9	"	"	"	"	"
" February	74.7	"	"	"	"	"
" March	67.4	"	"	"	"	"

The situation which is before industrial managers is not one of theory but of disturbing fact. It is obvious that those who terminate their employment voluntarily do so generally because of dissatisfaction. It may be wages, working conditions, poor housing accommodations, rough treatment by fore-

men, or some other cause; but it needs no speculation to determine the foreman's part in this huge wastage. To the worker the foreman is not merely a representative of the company but the company itself. Thousands of dollars, therefore, may be spent in the attempt to make employment attractive, and results, so far as labor maintenance is concerned, may be nullified by the indifference, lack of co-operation, and stupidity of foremen.

Recognizing these principles, progressive concerns are establishing training courses for foremen, and, like the International Harvester Company, are getting their foremen and executives together to impress upon them the importance of co-operation. At a notable meeting of nearly 600 foremen, department heads, and superintendents of the Harvester Company early in 1917, the first meeting of this kind ever held by the company, the following point, among others, was emphasized:

One thing must be driven out of every organization and that is the poison of fear, the element of coercion. Men should come to you and give you their confidence, because you deserve it, because they are your friends and look upon you as the right sort of a guide. I have been through some of the instructions personally given to captains of companies in the army. These describe the captain as a father of the company. The worst crime a captain can commit as father is to be unfair and abuse his authority in relation to his men. The privates are supposed to come to him with all their hopes and ambitions, their woes. That is what he is captain for. He is supposed to show human qualities—he is the father of the company.

The foreman is a sort of father of his department. The president and other executives cannot mix with all the men. You are the proxies of the men at the top. You are the men at the top so far as your own world in the shop is concerned.¹

¹ See *Industrial Management* for June, 1917: "Relation of Foremen to the Working Force," by Meyer Bloomfield.

The Packard Motor Car Company pays a bonus to its foremen who have the best records of stability among their force. The company calls its plan "Labor Maintenance Efficiency."

Reaching the Foreman—Labor Efficiency Bulletins

A successful method of reaching its foremen is that devised by the author for the Lake Torpedo Boat Company, Bridgeport, Connecticut. A series of "Labor Efficiency Bulletins" was prepared and sent every week or so by the general manager to the foremen to acquaint them with some of the modern ideas of management and how they were working out at other plants. These bulletins were very cordially received and much thought and enthusiasm were stimulated by them. The following is a typical bulletin:

FOREMEN AND THE PLANT SPIRIT

Plant spirit is not a matter of spontaneous combustion. It is a thing of growth—sometimes slow, sometimes fast, sometimes good, sometimes bad. But it all has a common basis. It is the reflection of the spirit which pervades the management and this means *you*.

Production is more a matter of men than machinery. One is the complement to the other. You are interested in getting fullest efficiency out of your men as well as your machines. You never rap a machine in anger if something is wrong with it, you try to mend it by using your mind. If you would make men fully efficient you must not only use your mind but you must get your men to use theirs. Man is a delicate machine. You can ruin it quickly.

You must be the guiding spirit to your men. You must inspire them to do their best. If you want your men to have "pep" you must show them by your example. Enthusiasm is contagious. Your enthusiasm is the moving force of progress.

If you lack enthusiasm, if you cannot appreciate the fact

that your men are just as human as you are and want to be treated as you would expect to be treated, don't hope for any sort of wholesome plant spirit.

Modern management realizes the importance of the foreman and leading man in developing good-will. And good-will is an asset to you as well as to the company. Production records depend largely on the spirit in which your men work. If you want *personal success* the way is clear. Your men will do the boosting for you—and a satisfied worker is the best press agent possible.

Get the good fellowship habit. Meet your men half-way. Help them in their activities. Give them a lift when they are discouraged. Forget personalities and go to your work with the spirit that has made Schwab, Carnegie, Edison, and the other leaders of industry produce miraculous results. You can do it. Every man has the qualities of leadership. Plant spirit means leadership that gives every man a chance to express himself—to bring the best out of himself.

You need no war to go out to win. Meet obstacles with a big spirit. Look at your job as a human problem. Study its weaknesses. Be a good mixer. Get your men enthused—let them help you solve your problems. Let every kick be a boost. Soon you will find yourself growing in power and that wonderful something, a fine plant spirit, beginning to assert itself.

A Remarkable Record of Plant Spirit

It is worthy of note here that during the summer of 1917 the company experienced a bitter strike; and when the men returned the management decided to adopt new methods. An employment and service department was established and close attention was given to the causes of instability of the working force. The great problem was how to build up the spirit of the plant. Working conditions were improved, discharges were carefully reviewed, a plant newspaper was started, and later a marine band was organized. Enthusiasm grew, and in ten months the rate of turnover fell from 294 to 70 per

cent. But this was not all. The men wanted to show their spirit. One of them conceived the idea of having the entire plant celebrate Independence Day in some manner different from that of any other industrial plant. A committee of workers waited upon the general manager. They asked him whether he would agree to all workers putting in three hours of work on the nation's holiday without compensation so as to show Uncle Sam they were with him in beating the Hun. Astounded at this request, the manager said, "Go ahead and arrange it. I'm with you boys." And so on July 4, 1918, at 7:00 A.M. promptly, 1,100 workers plunged into their task of building submarines and for three hours without break worked as they never worked before. Each hour was punctuated by a blast from the yard whistle. This only served to spur the men on. Each department tried to excel the other in production. Even the office force gave its quota towards this novel celebration with a voluntary attendance of 100 per cent.

When the three hours were up there was flag raising and the workers left after cheering themselves hoarse. It so happened that plans for this demonstration developed so quickly that some of the copper-shop workers had already made personal engagements for this day and could not readily break them. They were not going to be slackers, so twenty-eight of them signed a petition to the company requesting it to deduct three hours' wages from their forthcoming pay and contribute this to some war charity.

Not content with these manifestations of their loyalty to their country and to their employers the workers, a few weeks later, made a collection and bought a fully equipped ambulance which they presented to the Red Cross with a note reading: "To the Boys over there from the Boys over Here."

Such is the essence of plant spirit.

CHAPTER VII

TRAINING THE WORKER

Need of Industrial Training

Wherever human skill is required in industry workers must be trained. Skilled labor is as essential to industry as its plant, machinery, and manufacturing material. Even with normal operating conditions skilled labor must be continually supplied to replace the continual normal loss through regular causes. With unusual or emergency conditions, which might arise through an exceptional demand for the product manufactured, the supply of competent labor becomes of first importance. Indeed, unless the present operations of skilled labor can be replaced by some other means, such as highly developed machinery and other physical apparatus, and through greatly extended specialization, systematic training of labor is imperative if the flow of skill is to be maintained.

Benefits of Training—Efficiency

The benefits of such training, particularly of direct training on the job, are very great. It brings increased skill in the ability to do the operations of the job itself, which affects both the quality and quantity of the product. It increases, moreover, the general job intelligence of the worker, not only in connection with his own job, but in the relation of his work to that of others involved in production. In skilled trades much is required of the worker in the way of judgment and decision. Training improves ability to judge conditions correctly, make proper decisions, and handle any particular

job accordingly. Training also teaches time-saving methods in handling, calculating, laying out, and operation.

Progressive concerns value most highly those men who have received training within their own plants, and who, having grown up "within the family," know the methods and standards of the company. This knowledge may result in real economic value where method and standard are considered in skilled operations. Correct training teaches how to minimize waste: how to conserve material and save time through the best methods of procedure.

Aims of Training

Now the subject of industrial training is one that can be dealt with either in a narrow or in a broad spirit. Its purposes call for special definition in the light of what particular ends are to be gained. The whole subject calls for analysis in terms of industrial needs peculiar to each organization.

Within the various trades, the craftsman, and the semi-skilled worker must be distinguished both from those who fill the supervisory position, and from the so-called unskilled workers. Relative to the unskilled worker, a training plan will concern itself chiefly with the development of good industrial habits, steadiness, regularity, and information as to the policies of the management. The next step in such a program is to provide, wherever feasible, the training needed for promotion out of the unskilled class to a higher grade of work. In other words, a large element in the training program is the appeal to ambition, to standards of excellence both within the job and in the jobs to which it may lead.

One of the great needs of the workmen of today is adaptability to change. Progressive organizations all show steady transformation in details of technique as well as in the larger phases of operation. The unconscious resistance

which a mass of workers can offer to any innovation is as serious a hindrance as the opposition of outright hostility. One reason for such a situation is the absence of training provisions that prepare the minds of the workers for progressive developments in the organization. Change of the working force is often a last desperate resort for dealing with a stagnant personnel. But this is a drastic procedure, very costly, and wasteful. An easier and more satisfactory method is to anticipate changes by continual encouragement of the workers to keep alive to the demands of progress. Capacity to conform to innovation comes chiefly through education.

History of Trade Education

The oldest type of education in the world is trade education. The other kinds of training we are familiar with came much later. From the very beginning of organized occupations there has been a recognition of the need for some kind of regular instruction for those who were to be engaged in them.

During the "golden" days of the apprenticeship system in the Middle Ages, the training for a trade reached its height. There were many faults in that system as it was carried on; but it was the last word in that type of training—the boy who went through its rigorous program became a real craftsman, a master workman, ready to hold his own with anyone. It required seven solid years under stern discipline to complete the program, and at the end of that time leaders of the craft to which the apprentice had been bound gave him an exhaustive practical test. If the boy passed and could be otherwise recommended, he took his place with the elect in his own particular trade.

And the master workman of those apprenticeship days was something of a personage. He enjoyed certain privileges which the untrained were debarred from, such privilege, for

example, as freedom to change his habitation. Others less fortunate were tied to their localities.

The Decline of Trade Education

For something like three centuries this system flourished, and then began to disappear. The factory era began late in the eighteenth century and modern industry gave the history of man a new turn. For something like three generations, all during the period of marvelous industrial growth, apprenticeship, and with it trade training generally, was a thing of the dim past. Small shops grew to big ones, industries combined into huge aggregations, and millions of new workers in shops, mines, and mills came into industrial employment. But training was not a subject that concerned them or their employers. Long hours and arduous labor were regarded as the essentials of satisfactory production. Not until our own generation, in fact, was there an awakening to what training could do, and how superior it was to mere physical power.

The Revival of Trade Education

We have entered now a period when trained intelligence has been discovered to be a bigger factor than had been realized before in the traditional type of management. Public taste has become educated to a higher grade of workmanship, competition has forced changes in methods, and a gearing to the pace set by the most enterprising. Moreover, all sorts of outside forces have begun to act on the ideas and the attitude of the working force. Far-seeing managers have demonstrated that cheap, untrained labor is oftentimes a liability instead of an asset. The favors of the market have been won by those who have been forehanded in estimating the change that has come over both the consuming and the producing population.

Industrial education today is one of the great public enterprises of our common system of education; it is one of the big features of the modern plant. The literature on the subject makes a fair-sized library by itself, and the number of specialists in the field is legion. Trained intelligence is industrial wealth; the force of one skilled brain outclasses that of mere numbers without specialized fitness for the work in hand. The present era therefore may well be called the era of trained hands and brain. The future belongs to those who build on a foundation of trained personnel.

Aim of the New Trade Education

All this may sound obvious, and too self-evident to need emphasis. But emphasis is needed, and though assent to training is universal, there is yet a vast deal to be done. We are only at the beginning of the greatest industrial training projects in the history of the world. The old apprenticeship system reached but a few. The new training movements of our own and other countries aim to include in time every worker in every employment.

Industrial managers have been the pioneers in the modern movement of trade instruction. They have had to overcome the opposition of their fellow-managers, the hostility of educators who ridiculed the idea of associating education with manual work, and not seldom the resistance of the rank and file, who looked upon the training department as a threat to their own security.

All that is now past. The last decade has seen a larger advance in this field than in the one hundred years that have gone before. The story of what various industrial and other establishments are doing today for the training of their employees is long and interesting as is the story of what government, public, and semipublic agencies are doing in a similar direction.

Training for Every Worker

Out of the mass of material, and out of the abundant experience available, several important guiding principles emerge, and these must be carefully regarded in every training program.

First, it is good economy to provide, wherever possible, a course for every new employee in the methods, policies, and peculiar production problems of the concern. Whatever work an employee is given, the actual beginning of his service should be preceded by a period of preparation, even if it consists of but one or two lectures explaining the system in vogue. Old as well as new employees are in need of this initiation. It is a mistake to plunge a beginner immediately into the details of his particular task without giving him the benefit of a general survey of the establishment and of the industry of which he is to be a part. Good organization requires a preliminary insight into the new environment, as it were, and a careful explanation of its meaning. No specific training work should be begun before this work has been done.

Every industry has its romance, and every organization has a tradition that should be reviewed anew for the benefit of every newcomer. This is an indispensable part of what may be called assimilation. The United States Rubber Company, for instance, begins the training of employees with talks on the romance of the rubber industry, and how the company's huge enterprise has grown. A background such as this gives the specialized workers an entirely new grasp and attitude as regards their work and associations.

Industry today confronts a new set of conditions. Nothing, of course, can take the place of individual initiative and persistence; men of exceptional merit will rise from the ranks no matter where they start. But it is folly to rely altogether on such a source of supply. A few exceptional men cannot

take the place of a personnel trained in its entirety. Trained men are not available in sufficient numbers today to meet the demands of expanded industry. There is a competition of working forces as well as of goods and of management.

Every present-day industry that wishes not to surpass its competitors only, but merely to keep abreast of them, must enforce its enterprise with a program of training which will reach every element concerned with its product.

The next few years will prove decisive for executives who are foresighted. The proper balance between the quality and the quantity of output is what industrial leaders look to, and these results hinge in part on the character of the training that is available to the worker. One of the world's leading economists, Professor Alfred Marshall of England, has said:

To be able to bear in mind many things at a time, to have everything ready when wanted, to act promptly and show resource when anything goes wrong, to accommodate oneself quickly to changes in details of the work done, to be steady and trustworthy, to have always a reserve of force which will come out in emergency, these are the qualities which make a great industrial people.

It is true that there are many kinds of work which can be done as efficiently by an uneducated as by an educated workman, and that the higher branches of education are of little direct use except to employers and foremen and a comparatively small number of artisans. But a good education confers great indirect benefits even on the ordinary workman. It stimulates his mental activity; it fosters in him a habit of wise inquisitiveness; it makes him more intelligent, more ready, more trustworthy in his ordinary work; it raises the tone of his life in working hours and out of working hours; it is thus an important means towards the production of material wealth; at the same time that, regarded as an end in itself, it is inferior to none of those which the production of material wealth can be made to subserve.

Advantages—Better Relations

That it is much more satisfactory to deal with intelligent and well-trained employees than with the illiterate and the poorly trained, is a truism but unfortunately it is a truism that has not yet received universal credence. The trained employee can more readily and better understand and execute orders. He is more responsible in his work and in dealing with the company. He can usually see the employer's problem as well as his own if he has been in this business for some time. He is a real industrial asset.

Training should assist in increasing the interest of an employee in his work and his company. Through a better knowledge of his duties, responsibilities, and opportunities, he is better able to adapt himself to conditions and appreciate his relation to the rest of the organization. His decisions should be the wiser, as the result of his expanded outlook developed through properly systematized training.

Advantages—Reduction of Labor Turnover

An expense is involved not only in the employment and assignment process, but in adapting the new employee to his work and to the organization. Where proper training methods exist, the adaptation of the new worker to his job and to the organization is facilitated and the waste of placement is greatly reduced. The experience of concerns where the problem has been studied convinces that a large part of the dissatisfaction with their jobs and consequent termination of work by employees, may be traced to unsound methods of fitting them into the organization.

Industrial training assists in reducing turnover through making possible the employment of a better grade of worker, through a logical and systematic development of the worker's capacities, and careful placement in accordance with his adaptability, temperament, and other qualities. It assists in

developing a "content of labor," a prime factor in reducing turnover.

Job Adjustment—Survey

In this connection, one of the first steps to be taken, when a training department or project is installed is a careful job survey¹—indeed, a general plant survey from the point of view of employment.

A good outline for such analysis is the following, devised by Henry C. Link of the United States Rubber Company:

Name of job.....

Physical characteristics of job:

1. MachineNumber of.....
2. Handwork
3. Heavy.....light.....medium.....
4. Lifting..... hauling..... climbing..... standing.....
sitting..... walking.....
5. Clean.....dirty.....hot.....cold.....
6. Kind of eyesight required.....

Mental characteristics:

1. Educational
2. Prerequisite experience
3. Ability in English: Read.....write.....spell.....
talk.....
4. Ability in mathematics: Copy figures.....add.....
subtract..... multiply..... divide..... deci-
mals.....

Miscellaneous:

1. Earnings
 - a. Day-work..... maximum..... minimum.....
average.....
 - b. Piece-work..... maximum..... minimum.....
average.....
2. Hours
3. Possibilities of promotion.....

¹For a full discussion of job surveys and analyses, see "Employment Methods," by N. W. Shefferman, published by the Ronald Press Company, 1920.

4. Time required to break in new man.....
5. A brief statement of any other essential features of the
job.....
.....

The "Job Adjuster"

Where large numbers are employed it is obviously difficult to insure that every new employee is properly placed. Successful experiments have been made in large plants with what may be called "job adjusters"—notably at the Fore River plant of the Bethlehem Shipbuilding Corporation and at the Chester plant of the Merchant Shipbuilding Company. The plan of having one or more men devote their entire time to problems of adjusting workers to their jobs, and so far as possible making a corresponding adjustment of the job to the worker, has brought highly satisfactory results. The loss of capable workers has been noticeably reduced, productive efficiency increased, and dissatisfaction cleared up.

Foremen in a busy plant are too much occupied to spend much time on the individual problems of their men at work. The easiest way is to "get rid of the fellow" if he fails to show fitness for his job. But where there is a job adjuster the employee is turned over to him for treatment. This official, a man of tact and sympathy, and possessed of a good working knowledge of the jobs in the plant and their requirements, looks into the case and finds out where the difficulty lies. If the worker's previous experience is good and his present capacity sound, but a mistake has been made in placing him in the wrong kind of work, the adjuster will arrange for a transfer to another job. If the man merely needs some assistance in learning his new work the "adjuster" will see that proper instruction is given him.

It is the business of the job adjuster to act as the right hand of the foreman and the employment manager. He is

often in a position to discover friction spots in the organization the moment they appear, and is thus able to prevent misunderstandings that might cost much in time, money, and goodwill.

A Concrete Example of the Value of a Job Adjuster

A large western plant employing 18,000 workers was having considerable difficulty in retaining its force, and decided to establish the position of job adjuster as part of its program of bringing its employment department in line with modern ideas. Two men were employed as adjusters and a notice was circulated throughout the plant, not announcing the appointment of these men, but stating that any employee who had back pay due him or who found some mistake in the amount of wages in his envelope, should see Mr., Adjuster. It so happened that at this time the government made an award increasing the wages of the men in this plant and giving them the right to retroactive pay. Owing to the pressure of the work and the administrative difficulties involved, the pay was somewhat slow in distribution and considerable discontent manifested itself. When the men saw this notice they said to themselves, "Well! here's a fellow who is going to help us get our money and save our time"; and to him they flocked in large numbers. When they found, through contact, that the adjusters were not merely pay agents but were concerning themselves with all the work problems of the men, they began to "root" for the idea. Soon after, another notice was handed to each man reading, "If you think of quitting or changing your job get in touch with Mr., Adjuster. The foremen then saw the advantages of the job adjuster who saved for them the time ordinarily used in interviewing men who wanted to change jobs, and they refused to sign a man's termination slip until he had been to the job adjuster.

A remarkable result followed. In six months the labor turnover was considerably reduced. The company, foremen, and workers are enthusiastic about the plan because it has helped develop a plant spirit that is the envy of less progressive concerns.

Apprentice Schools as Selective Media

Some organizations value the selective possibility provided by their training systems quite as highly as the direct training given. The Pennsylvania Railroad Company, which maintains a system of trade apprentice schools described in detail later in this chapter, relies on its schools as selective media. Through these schools the special aptitude of the apprentice is discovered as well as his relative abilities. (For form of apprenticeship agreement, see Appendix E.)

The apprentice records in school and shop are used as the basis of selection of those to be given, first, positions of minor responsibility, and later, higher executive duties. This company is a fair example of the policy of developing officials from within the ranks, through considerable periods of training and experience in the several positions of advancement. The result of its policy has been the development of one of the most efficient organizations in the world. It offers a worthy example for other organizations. The provision of "a way out" to positions of responsibility for those whose initiative, energy, inherent ability, and hard work are bound to manifest themselves and to grow, is an important asset of organization assisted by training, and is a large contributing factor towards economic success.

Increased Training Means Increased Production

The increase in operating efficiency through the agencies cited as the product of training, means an increase in profits. Some of the savings and advantages given as a result of

training are indirect and somewhat intangible, but important nevertheless; others are direct and bear tangibly on operating conditions. In this connection it may be noted that reports have been obtained from 200 manufacturers who have given training a long and severe test. Of these 90 per cent state that their training departments are definitely profitable and all the others class them as an asset.

Kinds of Industrial Training

The kinds of industrial training which have had the largest development may be classified as:

1. Mechanical trade training by means of day-time and evening instruction.
2. Office training.
3. Emergency training, which assumed great importance during the period of the war.
4. Special training, such as is given in classes organized to provide short, intensive courses for special development or educational needs.

Mechanical Trade Training

Mechanical trade training includes not only the day training systems operated by corporations themselves, but also those operated in conjunction with local educational facilities. These are exemplified by the co-operative training systems established at Fitchburg, Massachusetts, between the representative manufacturing companies and the local high school, and at Cincinnati, Ohio. According to this plan the students alternate weekly or bi-weekly between shop and school, and through combined shop experience and school training develop into efficient employees. These systems have been highly commended by employers and school authorities, and are worthy of consideration by those desiring to establish training. The

Simonds Manufacturing Company, Fitchburg, Massachusetts, among others, is following out this training plan with success.

Many companies have benefited through classes conducted within their plants by state or university extension departments, such as are operated in Massachusetts under the state board of education, and in Wisconsin, Iowa, Chicago, Texas, and California, under the state university, or the privately endowed university.

Supplementary training of industrial workers is furnished also by correspondence schools, both those privately operated and those under state or university supervision.

Office Training

Office training schools for both day and evening instruction are operated by corporations under their entire control, or in co-operation with public or other outside educational agencies. Instruction by correspondence is also a factor to be considered in the training of office employees.

Emergency Training

Emergency training under pressure of war conditions assumed great importance in securing and maintaining an adequate labor supply. This training applied particularly to war industries, such as munition factories and shipbuilding plants. The training of shipbuilders was carried on under the supervision of the Emergency Fleet Corporation. The methods of training for instructors and men in the several skilled trades followed plans arranged in detail and supervised by the Emergency Fleet Corporation. The following chapter describes the training system which was used by the Merchant Shipbuilding Corporation at their Chester plant and carried out under the above-mentioned plan.

Determination of Method

Methods of training the worker will depend to a large extent upon instructors—their mental and physical characteristics and temperament, their education, and their experience. An instructor's knowledge of the psychology and pedagogy of the particular trade to be taught aids greatly. In addition to the influence of the instructor, physical equipment for training, as well as instruction material—lesson sheets, blue-prints, etc.—bear an important part. Methods of training involve also details of correlation of shop, school, and class.

Instructors

For success, an instructor should have a reasonably good physical bearing and personality. He should also be mentally alert, able to grasp quickly the details of a situation and direct his instruction along logical lines in connection with his training problem as a whole. He should preferably have a wide experience in the trade or subject he is teaching. The tendency at the present time is not so much to take a man of higher technical training, or a pedagogue, and teach him the trade requirements, as it is to take a common mechanic and give him "the teaching trade." In any case, the broader the general intelligence, and the industrial and training experience of the instructor, the more likely he is to adapt himself to general conditions, and the better he will be able to handle himself and his work properly in an emergency. He should be able to inspire his pupils, to keep up their enthusiasm for the work in hand, and to direct them kindly but firmly.

A knowledge of psychology is important to the well-equipped instructor. Each student is a mental and physical unit to be carefully considered. The instructor should be familiar with the laws of interest, attention, memory, reasoning, habit, and the other phases of mental life. It would be

well for him to read carefully such books as William James's "Psychology, Briefer Course"; Frank Cramer's "Talks to Students on the Art of Study"; and Dearborn's "How to Study."

Industrial training should always proceed, however, from the concrete to the abstract. It should find its beginnings always through specific problems arising in the daily work. Generalization should come as a later step.

Physical Equipment

The physical equipment should be the regular equipment of the particular trade, and should be handled under actual operating conditions. Industrial training in any particular trade is best taught right on the job on actual production work; the proper atmosphere so essential to effective industrial training can be gained in no other way.

Training classes or groups should be small enough to allow of individual instruction. This is necessary on account of the varying degrees of experience, preparation, ability, adaptability, and temperament of learners. All industrial training should be conducted informally and in such a way as to secure confidence, and to encourage and develop pride and interest in work.

Special problem or instruction sheets may be prepared as aids in "putting over" the mathematics or mechanics involved in the trade, together with shop sketching or blueprint reading required. These are essential in many branches of industrial training and represent the practice of progressive employers.

Correlation of Shop and School

In organizing industrial training of any kind, the conditions of the particular industry or trade or department should be carefully studied and the training program arranged in

accordance with the particular needs. Sometimes a training plan is formulated with insufficient co-operation and co-ordination with the operating and production heads. Such plans have doubtful possibilities. It is unsatisfactory to make an educational suit of clothes and try to fit it to a production requirement. The logical plan is to begin from the inside and work outward.

In order to make this training completely effective, there must be hearty co-operation from the foremen. Some instructors have had the experience of frequently seeing their best boys leave the plant to work elsewhere because of higher wages or the jealousy of foremen who feared the "rising generation" of young men. When the boy is ready for the job, the job should be ready for the boy. Foremen and superintendents must be educated to see this.²

² For an exhaustive discussion of training,* see R. W. Kelly's "Training Industrial Workers," Ronald Press Company, 1920.

CHAPTER VIII

SOME TRAINING SYSTEMS

Wide Variety

Provisions for training worked out by large American concerns are often very complete, but they differ considerably in details according to local conditions, and according to the special nature of the business. Some idea of the character and scope of such educational work may be gained from an examination of a few specific training systems.

The Pennsylvania Railroad Company

The Pennsylvania Railroad Company maintains a system of shop trade apprenticeship in which apprentices receive instruction both in shop and school. The course is of four years' duration for most of the trades.

Apprentices work under the supervision of an instructor in the several shop departments in accordance with a definite schedule. The work begins with the erecting shop, and the entire course requires four years to complete.

The school instruction, as outlined, covers three years of 42 weeks each. During the fourth year the apprentice does not attend the school but may be assigned to special duty work which will give him training in a particular line. Each apprentice receives four hours of instruction per week in periods of two hours each. These periods are separated by a number of days in order that the students may have enough study time to prepare the lessons assigned. The apprentices are paid at the regular rate for the time they put in at the school but

their evening study is done on their own time. They are grouped in sections or classes of from 15 to 20, so graded as to provide considerable flexibility for giving the individual apprentice the kind of instruction he needs in order to develop his latent possibilities.

The subjects consist mainly of mathematics and mechanical drawing taught in a severely practical way and applied to trade requirements. Such parts of the various branches of mathematics are given as apply to problems met in trade work. The work in mechanical drawing consists of sketching and drawing machine parts, tracing, blue-printing, and the reading of blue-prints. In addition to mathematics and drawing as much of English and elementary drawing is included in the curriculum as is warranted in schools whose primary object is specific trade education. Texts are prepared by the school instructors in loose-leaf mimeograph or blue-print form. Practically no formal text-books are used except for reference purposes. The apprentices are led on gradually from the simple to the more difficult problems, and are taught to visualize their instruction and receive it in terms of their shop environment. The purpose is to teach the direct practical use of principles involved, to develop methods of neatness and accuracy in work, and to foster the sense of duty and responsibility.

Monthly and annual reports of the instruction and records of the individual apprentices are submitted by the supervisor. They form a fairly complete record of the aptitude and ability of each apprentice and, when taken in connection with a similar system of reports from the shop foremen, form a valuable body of data in selecting apprentices for the various services of the company. The instruction offered in the company schools is broad enough to give the apprentice the basis of an education, and to assist him in becoming, not only a better mechanic, but a good citizen.

The Brown and Sharpe Plan—Objects

An excellent training system is that used by the Brown and Sharpe Manufacturing Company of Providence, Rhode Island, during peace times. Under war conditions they established a training department for "breaking in" new help in short periods. Under the war conditions, of course, the training was highly specialized, but the regular apprentice training is designed to be all-round.

With this company great emphasis is placed on training for the machinist's trade, since that is the principal trade involved in their business. Apprentices are also trained in drafting, pattern-making, moulding, core-making, and blacksmithing.

The company's main object, however, is to train apprenticeship, not only thoroughly competent mechanics, but men who may be developed for positions of minor responsibility in the management.

School Work

In order to give the apprentice the proper experience in his trade, he is transferred from one department to another, learning each part of the work in the department where it is done. The apprentices start with the simpler operations and are gradually advanced to those requiring greater skill. There is also some training along lines of special character. Training on production work is given in the regular shops. In this way the learners have the opportunity to profit from observation of work going on around them, as well as from that which they do themselves.

With most of the trades that are taught, school work is also given in order that the development of the brain of the worker may keep pace with the increase in mechanical skill. The school conducted by this company provides instruction in machine-shop mathematics, in making working draw-

ings, and in planning and designing tool equipments. Instruction is given without the use of text-books and the student is not required to learn rules and formulae. Problems that actually arise in the shop are presented in regular sequence as to subject and difficulty. The apprentices are also taught the principles of algebra, geometry, and trigonometry as they apply to the practical problems of the shop.

The machinist apprentices devote two hours per week to school work for the first two years of their apprenticeship, and four hours per week during the last two years. Pay at regular rates is given for their time spent in school.

The apprentice course is in charge of a supervisor of apprentices, who, with an assistant, serves as instructor in the school and also supervises the work of the apprentices in the shop, though in no way does he relieve the foremen of responsibility. In addition, the instructor takes a general interest in the boy's welfare both inside and outside of the works.

Requirements for Apprenticeship

To be eligible for apprenticeship a boy must not be less than 16, nor more than 18 years of age, must have a common school education, and be physically fit. Only boys of good habits whose senses are unimpaired are accepted. A preliminary examination in elementary arithmetic is ordinarily required.

The term of apprenticeship is four years. The first twelve weeks of work constitute a trial period. At the successful completion of an apprenticeship, a boy is paid the sum of \$150. While serving his time the boy works mostly on a day rate, but during part of his apprenticeship he may do work at piecework rates and so substantially increase his earnings.

The work of the Brown and Sharpe Company is representative of apprentice training practice especially for machinists. Readers who are particularly interested in this phase

of industrial training will do well to secure a copy of the bulletin, *Apprenticeship*, published by this company.

The Cincinnati Milling Machine Company

The Cincinnati Milling Machine Company has a well-organized apprenticeship system, offering two courses to boys on the co-operative plan mentioned in Chapter VII. Course No. 1 is for boys who have gone through the first two years of high school co-operative work. In the third year they become employees of the company and divide their time in alternate two-week periods between the school and the shop. After this their work is continuously in the shop except that for a year or more they have one-half day a week at school on advanced courses.

Boys are selected for the course on the basis of natural mechanical aptitude, good health and habits, and the willingness of their parents to co-operate. They receive regular pay for time spent at school, and those who complete the course receive \$100 bonus. A set of tools costing about \$35, which is later deducted from the bonus, is given to each boy at the time he enters on the course.

A notable point of the plan is the provision that if a boy desires to enter the Co-operative Engineering Course of the University of Cincinnati upon his graduation from high school he may complete his apprentice course by alternating in two-week periods between the university and the shop for the first two years of the university course. During the remaining three years of the university course he is given an opportunity to spend his shop periods in the engineering departments of the company.

If a boy cannot afford to go through high school and take Course No. 1 he may enter Course No. 2 consisting of two years' work in some special branch of a trade with a bonus of \$50 when the course is completed. Special arrange-

ments for a complete shop course are made with boys who take Course No. 2 and who attend night school to round out their general education, if they evidence a desire for further technical training.

The Simonds Manufacturing Company

The Simonds Manufacturing Company, Fitchburg, Massachusetts, has an educational department based upon sound principles. Its aim is "to open to the employees of all grades, new possibilities within themselves and in their work and to develop the idea that no one is to work without motive." The courses take up the history of saws, the mystery of steel, the operations of saw-making, the uses made of saws in mills, shop, and factories, and other matters which stimulate interest in the company's product. Experts from all departments assist in giving the courses and often outside specialists are brought in. Students prepare papers and talks.

Among the subjects taught are advertising—especially as related to the company's products—business, including management, organization, accounting, banking, selling, and letter-writing. The latter is intended for stenographers and those who dictate letters. There are also courses in modern methods of management, designed especially for foremen.

Department heads, clerks, and workmen take these courses together. Office men by permission may take shop courses and similarly men from the shop may take the office courses.

The Larkin Company

An interesting method of encouraging employees to improve themselves is used by the Larkin Company of Buffalo. An employee who has been with the company six months or more and wishes to attend public classes of instruction in any educational subject at the expense of the company may, after his application is approved, attend such instruction and be

reimbursed provided he attains a standing of 75 per cent in scholarship and 90 per cent in attendance.

Goodyear Tire and Rubber Company—Special Devices

The educational activity of the Goodyear Tire and Rubber Company is varied and extensive. In 1911 the technical men of the factory organized what is called the "Technical Society," whose purpose is self-education through evening lectures and talks. In 1915 the scope of this society was broadened and all employees were welcomed to membership. Talks are given on aeronautics, mechanics, the chemistry of rubber manufacture, as well as on shop practice.

Another means of training, somewhat similar in nature is offered by the Efficiency Club, made up of department heads, office men, and others who meet fortnightly to study commercial and manufacturing methods. Discussions and debates make the meetings interesting.

The most striking feature of the educational policy of the company has been the development of two organizations of picked men, trained in all plant operations, and known as the "Production Squadron" and the "Engineering Squadron." When it is found that the production of a certain department is falling off, these men are put into it to build it up. Their all-round training makes them specially valuable. About 1,000 of these men are now available. A "production squadron" consists of about 50 men; an "engineering squadron" is somewhat smaller.

The Factory School

The factory school was established to provide instruction to the squadron organizations and other special groups. In 1916 the school was opened to all Goodyear employees. There are now 11 classrooms located on the top floor of one of the

buildings, in which 11 full-time instructors conduct 144 classes per week. To take care of all shifts, the hours of the school are from 6:30 A.M. to 10:30 P.M. Included in the membership of the school, for instance, are a number of foremen who wish to better their education.

Each course consists of 40 lessons. The subjects taught are as follows:

1. For production squadrons. Business English, arithmetic, rubber manufacturing practice, economics, organization and management.
2. For engineering squadrons. Shop mathematics, elementary mechanical drawing, advanced mechanical drawing, elementary principles of mechanics, advanced mathematics, modern business methods.

Other subjects taught are, business English, arithmetic, civil government, modern business methods, commercial geography, American history, Spanish, public speaking, business law, and corporation finance. An unusual feature is the provision of courses for mutes. Business English and arithmetic are the main subjects taught. New subjects are added as occasion demands.

In addition to this extensive work for its own employees, the company offers a three months' factory course to graduate engineers and gives them an opportunity to obtain practical experience in each of the departments of the factory.

The Western Electric Company

Another successful training system is that of the Western Electric Company at Hawthorne, Illinois. Their training activities include schools for typists and comptometer operators, educational courses for manufacturing apprentices, and, in addition, courses for college graduates. The company sends representatives to colleges throughout the country, to

meet the men before graduation and explain to them the opportunities for employment with the company. When satisfactory arrangements are made the men are assigned to one of three courses—manufacturing, engineering, or commercial, each of which runs for a period of 49 weeks and includes lectures and practice.

The work of the manufacturing department is very comprehensive and offers a wide field of specialized training. Opportunity is afforded for work concerned with:

1. Scientific study of raw material.
2. Standardization of methods and equipment.
3. Preparation of detailed working drawings.
4. Planning and laying out buildings.
5. Selection of proper stocks.
6. Maintenance of standards of workmanship.
7. Determination of piecework prices.
8. Efficient handling of material.
9. Determination of manufacturing costs.
10. Supervision of workmen.
11. Supervision of employees engaged in installing equipment throughout the country.

The engineering department is constantly studying new methods of improved communication by electricity and the problems involved. As the work of this department is to a large extent taken up with research it cannot be easily outlined. But the work is none the less important and affords opportunity for continuation of the work covered by the college course.

The work of the commercial department has to do with warehousing, purchasing, accounting, selling, distributing, and financing. In conjunction with each of these main divisions of activity, many specialized but less comprehensive subjects are studied.

Evening courses are also provided for employees, and are supervised by an educational committee of a social and educational organization of employees known as the Hawthorne Club. The company furnishes the equipment and facilities for instruction and shares the expense of administration with the club.

The following courses consisting of 12 lessons each are given:

Electricity and magnetism.

Telephone practice.

Practical mathematics.

Manufacturing principles.

Mechanical drawing.

English.

Principles of mechanics.

Typewriting.

Production principles.

First aid.

"The work in them is planned to give each member who enrolls those things he wants and needs, but which he finds it impossible for one reason or another to secure elsewhere." The classes meet once a week from 5:45 to 7:15 P.M.

A works training department gives a four-year apprentice training in machine trades to boys between the ages of 17 and 20 who have had the equivalent of a grammar school education. Boys who show natural aptitude for mechanical work or who have had good schooling are selected on the basis of competitive entrance examinations. Four hours of each week are spent in classroom study by the apprentices, and the remaining time is devoted to mechanical work in the works training division or in operating departments. The course of study covers shop mathematics and mechanical drawing, lathe and screw machine-work, benchwork, milling and grind-

ing, automatic screw machine-work and handscrew machine-work.

Foremen's clerks are given clerical instruction in a special section which meets three hours weekly. All who receive training are paid by the company.

Special schools are maintained for women employees who wish to become typists, stenographers, or comptometer operators.

The Packard Motor Car Company

At the Packard Motor Car Company, Detroit, until recently, employees were trained in the shop under the most competent foremen, but the disadvantages were many. Instruction by foremen was found to be costly; it reduced the productivity of the departments where such instruction was given and resulted in much waste of material. And when the employee was ready for a regular production, he knew only the process in which he was trained. To meet the need for more fundamental training a special school was established.

As soon as one applies for admission to the school he is interviewed to determine what vocation he desires to follow. If it is found that, owing to physical peculiarities, his choice is unwise, the applicant is advised to undertake something else.

Special instructors carry on the work. The Packard Company, like other concerns, has found that best results are achieved by individual attention to students. On elementary work it was found that one instructor could efficiently handle five students, but that on machine-work one instructor for every three students was found to be absolutely necessary. One instructor for two students proved most successful.

Not only the correct method of performing the job is taught, but physical training is given in how to do the work easily. In its work with women the company took especial

pains to harden the students, during the training period, so as to enable them to stand at their work without undue fatigue. Where possible, chairs were provided. The period of time during which the students were required to stand while at the job was gradually lengthened until, when the course was completed, they were able to stand during the full working period. The rate of adjustment of the individual to the work varies in accordance with the severity of the task.

The Wanamaker Plan

Department store training systems are well exemplified by that of the John Wanamaker establishment in Philadelphia. Twenty-five years ago a body of the younger employees of the store was organized for educational purposes into a John Wanamaker Commercial Institute. This Institute now offers free instruction in common school branches, together with elementary business subjects, musical, social, physical, and military training. Instruction is given in both day and evening classes and includes specifically such subjects as spelling, "better English," reading, penmanship, practical drawing, mechanical lettering, design-work and stencil-making, store and community civics, commercial and industrial geography, music and physical culture.

For adult employees the American University of Trade and Applied Commerce has been founded. The purpose of this institution is twofold:

1. To give employees an opportunity of continuing their education while earning a livelihood.
2. To develop better individuals, more useful members of society, and better citizens.

The work is designed to supplement the primary and secondary education of the John Wanamaker Commercial Institute. Such technical subjects as pertain to the employee's

job are taught, and with them such cultural subjects as pertain to health, thrift, and proper living.

The Filene Plan

An unusual plan of educational work in department stores is that conducted at William Filene's Sons Company in Boston for the 3,000 employees. The training work at this store has two phases:

1. The training of the individual for his specific task.
2. The development of group consciousness through the organization of those doing similar work throughout the store.

Such matters as job analysis and standards of work are brought before the organized groups for their determination. When the number of the workers in a group is small they meet in one body, but if the number is too large, individuals are chosen to represent the group at its meetings. For example, the salespeople, numbering about 800, must conduct their meetings through representatives chosen from the selling departments. The heads of stock in large garment sections, numbering only 23 in all, meet in a single group.

Miss Bernice M. Cannon, the Educational Director of the store, illustrates the method by the following statement about one group of workers, the "floor clericals," who are the clerical assistants to the floor superintendent in the selling departments. There are about twenty of these workers in the store.

As a result of our work, they are organized under their own leadership. Their job was analyzed and the group agreed on the responsibilities they considered were theirs to assume. The representative of the training department is the instructor of new people to the group. When a vacancy occurs, she is appointed temporarily to hold the job, to be assured that the particular job is well organized. An

assistant is appointed and the job is gradually turned over according to a definite plan. It takes, on the average, a week to train a floor clerical. When the week is over, the educational representative reports to the executive of the department that the person is trained and that she is ready to stand the test of the person doing satisfactory work. She then withdraws. In this way the instructor constantly goes back and forth to the operating job and is thus kept alive to the difference which the public demand may make of it. Not only this, but differences in practice not known before, may be revealed and the instructor then goes to the group for a decision on the standard practice. This particular group discovered that the quality of their work affected that of the auditing office. They voted as a group to be checked for a time by the auditing office, reserving the right to check the auditing office in return.

One most important result of such training in group organization and in democratic group leadership should be the elimination of the greatest evil of big business, the poor leadership of the intermediate executive to whom managers have to entrust the smaller units of their business and who to so great an extent are responsible for the autocratic management that adds to industrial unrest.

Other Plans

Another excellent apprenticeship plan is that of the Remington Arms Union Metallic Cartridge Company of Bridgeport, Connecticut. An outline of the terms and form of their apprentice agreement will be found in Appendix E.

Many employers throughout the country make provision for reduction in the period of apprenticeship in case of unusual application and ability. A large plant in Wilmington, Delaware, for example, gives a reduction ranging up to six weeks when the boy in his second or third year shows conscientious effort. Another concern grants a reduction of from two to three weeks in the course if the boys take outside work, generally a course in drafting at the local Y. M. C. A. An-

other well-known establishment in the same city offers a free evening technical course in the Y. M. C. A. after a year's service, provided that the boy's attendance has been 97 per cent or more of the working year.

The General Electric Company maintains schools within its own plants for training men for the several mechanical trades required in electrical manufacturing, especially for training machinists. Instruction is given during working hours on actual production work. The training room is in effect a large machine-shop set aside for training purposes. The men under training also attend classes which meet during the week for two-hour periods to study the mathematical and physical principles of their trades and to learn how to read blue-prints.

Much the same system is followed by the Westinghouse Electric and Manufacturing Company, the National Cash Register Company, and other representative machine and mechanical products manufacturing companies, as well as by the Pennsylvania Railroad, the Atchison, Topeka and Santa Fé Railroad and other representative roads.

The Curtis Publishing Company, in Philadelphia, and the R. R. Donnelly and Sons Company, in Chicago, conduct schools for the printers whom they employ. Learners are instructed during working hours while under pay. The instruction is intended to develop compositors and men experienced in the several printing trades.

Training Shipbuilders

The training of shipbuilders is still an important matter, even though the war is over, because of the demand for ships to replace the tonnage lost by warfare and because of the movement toward developing a merchant marine. The number of men available in the several skilled shipbuilding trades is still relatively small.

The plan of the Merchant Shipbuilding Company, described below, which was employed during the war, is typical of that used by many companies in the United States. According to the plan, men from trades allied to those in shipbuilding, and even men wholly unskilled, were trained in some skilled shipbuilding trade by instructors who were themselves competent mechanics and also graduates of a government instructor training center. At these training centers which were established at various points in the United States the instructors were taught the most effective way of "putting over" their instruction. The plan of the Merchant Shipbuilding Company embraces in general methods of preparation, presentation, application, and check.

The trades in which instruction was given included ship-fitting, pipe-fitting, riveting, and so on. The learners were taught during working hours, under pay, and instruction was given on the job on actual production work. At times the instruction on the job was supplemented by classroom instruction in such work as blue-print reading, laying out, etc.

Aids for Establishing and Conducting Industrial Training

Employers who are conducting industrial training, or who are contemplating establishing such training, may receive aid from one or more of the following sources: ¹

1. Federal funds are available through the Smith-Hughes Act for the training of teachers of trade and industrial subjects and the payment of the salaries of teachers of these subjects. These funds must be administered through the several state boards of education. Details of the plan may be obtained from the Federal Board for Vocational Education, Washington, D. C.

2. State aid may be available through several agencies for

¹The general subject of training the worker is treated in full in "Training Industrial Workers," by Roy W. Kelly, published by the Ronald Press Company, 1920.

industrial training. This, for example, may be through state-aided industrial schools, or through educational extension divisions operated under the state board of education, or a state university. A request for information to the state board of education will bring the desired facts on opportunities offered by the state in the interest of industrial training.

3. Local aid may be available through special funds or through day or evening schools operated under the public school system or under private auspices.

4. The Y. M. C. A.'s in the larger cities give educational courses which may be valuable as supplementary training for the industrial worker.

5. The following associations have been organized to promote industrial training, and the employer will do well to make use of their past work and experience in organizing and developing the industrial training for his employees:

National Society for Vocational Education, 140 West 42nd Street, New York City.

National Association of Corporation Schools, Irving Place and 15th Street, New York City.

National Society for the Promotion of Engineering Education, Pittsburgh.

CHAPTER IX

THE PROBLEM OF AMERICANIZATION

The Influence of Foreign-Born upon Industry

Since the war, great interest has been aroused in the problem of aliens and their relation to industrial management. This interest is partly owing to the fact that a large number of the 700,000 illiterates between the ages of 21 and 31 discovered by the registration in the first selective draft were foreign-born. The importance of the problem may be better realized through a study of the number of foreign-born living in this country. The census of 1910 showed every seventh person in our population—not including Porto Rico and the Philippines—to be of foreign birth. Of these persons 1,650,000 were illiterate. This figure does not include all who are non-English speaking, but only those who are unable to read or write in any language. A large number of foreign-born who can speak or read English but very little, or not at all, are employed in industrial work and have offered an unusually fertile field for propaganda inimical to the industrial and social welfare of the country. In a recent census of 10,000 foreign-born workers embracing 58 nationalities at the Bethlehem Steel Company, 5,300 showed no interest in citizenship. Industrial unrest among foreign workers has complicated the problem and is forcing employers to think seriously of methods of bringing about some solution.

The present tide of emigration is making the influence of the foreign-born upon industry felt in a negative way. Appeals are being made to those of foreign birth to return to their old country and help repopulate and reconstruct

devastated territory. That these appeals have been effective is indicated by the pressure which the banks feel through withdrawal of savings by those contemplating a return to Europe.

"Industrial Americanization"

One method of solving these industrial and social problems is known as "industrial Americanization," which aims to bring the immigrant to a better understanding of industry and to make clear his privileges, rights, and obligations in the community—particularly in regard to his work. As defined by Charlton Edholm of the National Americanization Committee, the fundamental purposes of industrial Americanization are:

1. The interpretation of American ideals, traditions, standards, and institutions to foreign-born peoples.
2. The acquirement of a common language for the entire nation.
3. The development of a universal desire of all peoples in America to unite in a common citizenship under one flag.
4. The combating of anti-American propaganda activities and schemes and the stamping out of sedition and disloyalty wherever found.
5. The elimination of causes of disorder, unrest, and disloyalty which make fruitful soil for un-American propagandists and disloyal agitators.
6. The abolition of racial prejudices, barriers, and discriminations, of colonies and immigrant sections, which keep people in America apart.
7. The maintenance of an American standard of living as applied, for instance, to the use of American foods, the preparation of foods, and the care of children.

8. The discontinuance of discriminations in housing, care, protection, and treatment of aliens.
9. The creation of an understanding of and love for America and the desire of immigrants to remain in America, have a home here and support American institutions and laws.

"What America Means"

Once in a long while a distinguished citizen and public official gives voice to ideals of Americanization in terms which deserve the closest attention of all serious workers in this field. Franklin K. Lane, recently Secretary of the Interior, has delivered such a message. It should be reprinted on large posters and hung up in every school, in every shop, and indeed wherever any work of transforming the alien into an American citizen goes on. The following paragraphs from Mr. Lane's address on "What America Means" deserve special emphasis:

Americanism is entirely an attitude of mind; it is the way we look at things that makes us Americans. . . .

I would give to the man whom I wished to Americanize (after he had learned the language of this land) a knowledge of the physical America, so as to get an admiration, not only of its strength, of its resources, of what it could do against the world, but that he might have pride in this as a land of hope and a land in which men won out. I would take him across the continent.

I would show him the good and the bad. I would show him the struggle that we are making to improve the bad conditions. I would tell him not that America is perfect, that America is a finished country, but I would say to him: America is an unfinished land. Its possibilities shall never end, and your chance here and the chances of your children shall always be in ratio to your zeal and ambition. . . .

And I would give to that man a knowledge of America that would make him ask the question, "How did this come to be?"

And then he would discover that there was something more to our country than its material strength.

It has a history. It has a tradition.

The march of civilization is the epic of man as a workingman, and that is the reason why labor must be held high always.

We have nothing precious that does not represent struggle. We have nothing of worth which does not represent effort. We have nothing of lasting value that does not represent determination. We have nothing admirable which does not represent self-sacrifice. We have no philosophy except the philosophy of confidence, of optimism, and faith and the righteousness of the contest we make against nature. . . .

That is the reason, my Russian friend, my American friend, why this is a haven to you. Bring your music, bring your art, bring your soulfulness, your ancient experience, to the melting pot and let it enrich our mettle. We welcome every spiritual influence, every cultural urge, and in turn we want you to love America as we love it because it is holy ground—because it serves the world.

Americanization—A Humanizing Program

The foregoing extracts emphasize the importance of a sympathetic attitude for successful Americanization work. Moreover, an understanding of the alien and a recognition of the necessity of working *with* rather than *for* him in the factory, school, or citizenship club are essential. When he is treated with understanding sympathy he responds and gives his best effort in co-operation. The spirit in which Americanization work is carried on is fully as important as the method and the program. Experience has shown how easy it is to fail entirely through over-reliance on what might be called the mechanical side of the work, and through an insufficient grip on the human-nature facts involved.

On the other hand, good impulses alone do not go far, and the best of programs can be ruined by a lack of intelligence.

Nothing has been accepted more fully by industrial managers of experience than the proposition that if the work to be done concerns human beings, whatever may be its nature, only competent persons should be placed in charge. Unless real intelligence underlies work of this kind, the effort is sure to prove futile, and not improbably harmful; for human nature, and rather sensitive, self-conscious human nature, is the raw material with which the Americanization worker deals. After all, we really cannot Americanize the alien; he must do that for himself. It is for us to show the way; and as Americanization requires an atmosphere of mutual confidence, it is absolutely essential to win the good-will of those whom we would influence. We must look for the best methods, and try to sum up in a practical way just what is and what is not desirable.

The Importance of First Impressions

When the immigrant comes to this country, he brings with him the desire to enjoy the freedom and reputed good-will of America. Whatever his nationality, the lonesome stranger is ready to respond to the least sign of cordiality and consideration. Sympathetic assistance in learning the habits, customs, and traditions of the new country will bring out the best in him. If he is to become an integral part of our industrial structure he must not be treated as an interloper, but as a friend. He must find it worth while to make this country his permanent home and in doing so must understand our ideals and see the relationship of our industrial and political organization to his own job and his personal welfare.

These facts are appreciated and utilized by such concerns as the Schwartzenbach-Huber Company which is carrying on an Americanization campaign in its New England plants as a part of the campaign for labor maintenance. The company believes that more can be done to establish the right spirit

at the time when the foreign-born worker receives his first impressions than later when his opinions have been formed. Its policy, therefore, is to treat the newcomer with the courtesy and consideration with which an American would desire to be treated in a strange country, and American employees of the plant are encouraged to make their foreign co-workers feel at home.

Managerial Attitude—A Determining Factor

The real work of industrial Americanization begins with employers, foremen, and bosses, for their attitude is the determining factor in the success of any Americanization plan. To the foreigner, they are the persons who represent this country and American ideals. These men must get away from the notion that foreign-born workers are merely "wops," "mutts," and men without intelligence. A manager of a large industry in speaking of his foreign employees to the author called them "animals who want nothing but money," and another, expressing his labor needs, exclaimed, "We want men who don't use their brains; we want foreigners!" How little did these men know of the forces at work among these "foreigners" to capitalize their man-power and help "show the bosses that we are human beings and intend to take the control of industry away from the slave-drivers!"

The Right Attitude

In one of the largest shoe factories in the world, employing many foreigners, a deep undercurrent of unrest asserted itself from time to time. Unexpectedly, a notice came to the management asking for an immediate increase in wages and making other demands. If such demands were not met within 24 hours, the total foreign working force (about 8,000) would quit. No trade union issue was involved. The workers were not organized into trade unions. The men were unorganized

and there was serious danger of violence if the men went on strike. The president of the company conceived the idea of meeting the men personally, and posted such a request printed in various languages throughout the plant.

That night a great crowd of the men gathered together and waited for the president to appear. They had never seen the president. When he appeared there was an immediate hush. With a smile on his face and in the most courteous language he asked, through an interpreter, that the men give him an opportunity to go over the whole cause of dispute with representatives whom they would select; these representatives could then go over the books of the concern and see for themselves whether an increase at that time was possible. In the meantime would they please extend the time for answer to their demands? From several parts of the room men sprang up and shouted in their native tongues. Finally one who spoke English brokenly was allowed to talk directly while the others listened. This is what he said:

"Mr. President, we thank you for your kindness in coming to speak to us personally and we wish to say we appreciate your courteous consideration of our requests. We will go back to work and send you our men to talk with you."

Wild applause followed and the men left in a spirit far different from that in which they came. They selected their committee which went over the books and reported that an increase could not be fairly asked at the time. There was no strike.

The Americanization Committee

Like other service work, Americanization depends for its success upon the full co-operation of all the parties in the industrial enterprise. The alien should be given a place in the councils dealing with this type of plant activity. One of the best methods of handling this work is through a com-

mittee of workers and representatives of the management, which should, if possible, represent every nationality in the plant. We are always in danger of overlooking human distinctions of importance when we generalize about people in a wholesale way. All aliens are not alike, though some of their problems may be; nor are all nationalities in daily contact likely to conform to the rough classifications we may use concerning them. The Americanization Committee of the United States Rubber Company plant at Naugatuck, Connecticut, is composed of two men selected from each racial group. They have done a good deal to stimulate activity among foreign-born workers.

The committee, thus constituted, should hold meetings often to discuss plans and procedure. Such representation will go a long distance to bridge the gap between the management and the new Americans. They will receive this attention as a sign of respect and consideration, and their appreciation will take the practical form of helping to keep up attendance, interest, and loyalty for the project. Moreover they will now and again offer hints and counsel of utmost practical usefulness.

Where the above suggested method has been tried, an enthusiasm has been developed which compensated the management many times over. In New Britain, Connecticut, for example, a number of the factories are co-operating in this work, and have committees some of whose functions are:

1. To assist all employees in acquiring the English language.
2. To distribute advertising leaflets and posters in order to stimulate evening school attendance.
3. To plan for special recognition of those who attend evening classes, and to encourage absent students to return.

4. To promote citizenship interest among employees.
5. To enlist foremen's interest and to help them develop a more thoughtful and sympathetic attitude.
6. To provide opportunities for social contact, through such activities as community singing and so on.

The Influence of Plant Spirit

The best and most lasting achievements in Americanization work have resulted from indirect, rather than direct influences. If the spirit and surroundings of the plant definitely suggest Americanism, a large part of the work has been accomplished, and a fertile soil for further successful work has been prepared. Posters, flags, first-rate and cleanly surroundings, produce an atmosphere distinctive of American work places. This environment is in sharp contrast to that which many an alien has been accustomed to abroad. As the proper atmosphere has a direct bearing on the success of any Americanization plan, every executive, every foreman, and every employee must be impressed with the matter of maintaining American standards with regard to the immediate surroundings of shop, mine, and mill. This requires attention to detail, but the effort will bring about better discipline, and greater care of tools and other property. Right plant relationships and an interest in the constructive educational work of the organization will also be manifest.

Getting Behind the Returns

A point to be borne in mind, however, in checking up Americanization projects is the inadequacy of routine statistics, necessary though they may be. Figures can never tell us how the people influenced by various projects really have been affected. There has been a tendency to make much of classroom records. It is important to go behind the returns. To accomplish this, a closer contact with the groups being

Americanized is required than is always found. These groups have something to say, if wise methods are used in getting at their ideas. At times, they are treated in too mechanical a fashion, and much helpful counsel is lost, which if gathered in time would do much to help improve the work. Every graduated group should be treated as an alumni group whose interest in the future good of the service that has helped them is expected for the sake of others who come after them. There is cumulative good-will in such a treatment of the groups, and the assurance of continued improvement and larger effectiveness of the whole enterprise.

A California Commission

A few years ago the state of California established a commission on housing and immigration. This commission has been a great success because from the very outset its members sought to see the immigrant problem not only from their own standpoint, but from that of the immigrant. They believed in him; they felt and showed their respect for his customs and his traditions. Nothing they ever said caused any loss of self-esteem on the part of those they sought to help. By building on the loyalties that were natural to the alien they placed the new loyalties they sought to instil on a much stronger foundation.

The new environment of the alien was a matter of large concern to the commission. Was the local environment, they inquired, such as helped or retarded real Americanization? Were influences at work on the alien which, unless checked, would embitter his spirit and develop in him a hostile attitude toward the new land? In other words, those practical Californians threw mouth-filling phrases aside and faced the facts squarely. They saw that poor housing was an enemy of Americanization; that abuses and oppressions of various kinds suffered by the alien at the hands of both his own more

sophisticated countrymen and those who called themselves Americans were doing more than anything else to alienate and prejudice him. These things had to be dealt with in a sensible manner if Americanization could make any headway at all.

Report of the Commission

Here is the commission's own statement of just what followed:

From the start, in the scheme of the commission, these tasks outlined themselves, following the belief that before a man should be asked to become a good American by being worthy of his surroundings, those surroundings should be made worthy of a good American.

The immigrant did not understand his rights, did not understand our laws, his ignorance was exploited on every hand; so the commission's Bureau of Complaints came into being, to advise him, to adjust his difficulties, and to remove the causes for those difficulties.

In the labor camps he worked—for the most part—under wretched conditions which he could not change, and the remedy for this was the commission's Bureau of Labor Camp Inspection which, in five years, has revolutionized the labor camps of the state.

He lived by his work and little help could be given him if he were deprived of that work; and the question of unemployment with the problems leading up to it, the problems arising from it, and possible solutions, became part of the commission's undertaking.

From the moment of his arrival he was crowded into the badly congested quarters of the city and so the problem of housing was accepted as part of the bigger problem of immigration, and the commission set about the task of awakening the state to its obligation of furnishing proper living conditions even for those who can pay little rent.

He did not know the English language, and the commission's Bureau of Immigrant Education turned to this new task of education.

Even so, he could not wait to learn the language of America before assuming some of the duties toward her; her ideals and hopes had to be made clear to him in his own tongue; and the commission's foreign-language speakers set out upon their mission of enlightenment.

An Ohio Plan

One of the best plans for developing Americanization work through industry is that outlined by H. T. Waller, Director of the Bureau of Education of the B. F. Goodrich Company of Akron, Ohio, for the Ohio Council of National Defense. The first step, according to this plan, is to secure the services of a man, if possible from the working force of the plant undertaking the campaign, who is possessed of broad sympathies, tact, and vision as well as a practical education. He must be the person to focus the interest of the community, the industry, and the non-English-speaking groups upon Americanization work and this necessitates freedom from bias against any creed or nationality. The next step is for the official head of the company to hold a conference of foremen and sub-foremen who handle foreign-born workers in any appreciable number, and to present to them the problems of the immigrant as related to national and industrial success. The person at the head of the educational work in Americanization might then be constituted an assistant to each department foreman, to work with him for the men in that department.

Emphasis on Practical Results

The fact has been already emphasized in these pages, that **the** purpose of the factory is production, and that education **can** have no place in the factory except as it is an influence **in** steadying or increasing production. In considering the **advisability** of installing a course only one thing should be **considered**—will it bring about practical results?

Experience has proved very definitely that a knowledge of the following subjects increases production:

1. English. A working knowledge of English enables the worker to understand notices and instructions, and consequently reduces the number of accidents and the amount of waste. The economic value of the worker is thereby increased and the teaching of the subject in the factory is justified.

2. American history. The history and character of great Americans and their contribution to the growth of the United States teaches by example the part which new Americans must play in the life of the country.

3. Civics. Whether a man is naturalized or not he has certain rights and duties under our government. If these rights or privileges and their corresponding obligations are taught, the worker will better understand such matters as the restrictions placed upon strikes when the welfare of the public is concerned. This in turn influences production and so makes the teaching of the duties of citizenship worth while.

The Scope of Americanization Work

The programs of these two groups in California and Ohio have been cited because they indicate the scope of Americanization. Carrying on their work in widely separated parts of the country, both groups—after right living and working conditions were obtained for the men—aimed to accomplish two things: to teach the foreign-born worker our language, and after he had gained that knowledge, to teach him something about our American institutions and ideals. The importance of a right environment, of course, should never be overlooked. Not the foreign-born alone, however, but all employees respond to right housing conditions and the other phases of service work considered elsewhere in this book.

On the other hand, the special need of the foreigner is to learn the language of this country and to become acquainted

with American institutions. Although the foreign-born worker must assume some of his duties to this country before he can possibly have time to learn our language, Americanization work is greatly facilitated by a knowledge of English on his part. For this reason the fundamental principles and the best methods of teaching English deserve attention first wherever an Americanization campaign is started. These are presented in Chapter X. A consideration of the work of acquainting him with American institutions is taken up in Chapter XI.

CHAPTER X

TEACHING THE FOREIGNER OUR LANGUAGE

The Importance of Teaching English

The work of Americanizing the foreign worker is aided greatly when special classes are established in which he may receive knowledge of the English language. These classes may be conducted by the factory, by the public schools, or by the factory in co-operation with the schools. There is no element of philanthropy in this; nor is there anything of the paternal. The problem has been approached from the standpoint of good business and because experience showed that these efforts have beneficial results. Thousands of dollars are lost each year through accidents which are the result of the failure of foreign-born workers to understand verbal or written orders. Large sums are lost through wasted products. Most serious of all is the unnecessary loss of life and limb, traceable to the lack of knowledge of the English language..

An appreciation of the saving resulting from teaching English may be gained by considering the results of educational work among immigrant workers carried on by D. E. Sicher and Company, manufacturers of muslin garments in New York City. The earning capacity of the workers in this concern in the first year of the classes increased from 10 to 40 per cent. Moreover, the amount of supervision necessary was considerably reduced and two instructors were able to do the work which previously required the services of four or five.

Forming Classes for Study

A special committee appointed by the National Americanization Conference held in Washington, May, 1919, to study methods of teaching English to foreigners concluded that the best results are obtained by grouping students according to:

1. Race. This is of special importance with beginners who cannot speak or understand English. "In this way racial antipathies are avoided and groups that are homogeneous both as to racial backgrounds and intellectual achievements can be brought together."

2. Sex. If the number of pupils is insufficient to warrant separate classes, men and women should be divided into separate groups in the class.

3. Knowledge of English. Three groups consisting of beginning, intermediate, and advanced students are usually made. The first group should be made up of those who have no knowledge whatever of English, or very little. The second group should consist of those who speak with some fluency though incorrectly, who can read simple English sentences and perhaps write short sentences from dictation. The third group may contain those who are able to talk on subjects of general interest, who can read the newspapers, and who are able to write a short business letter fairly well.

The following outline is offered by the committee for the convenience of persons who are called upon to classify pupils according to their knowledge of English:

1. Beginning group, comprising:

(a) Illiterates who:

Speak and understand no English.

Speak and understand some English.

(b) Those educated in some foreign language who:

Speak and understand no English.

Speak and understand some English.

2. Intermediate group, comprising those who:
 - (a) "Speak much English poorly, or a little well."
 - (b) Read simple English sentences with understanding.
 - (c) Write short sentences from dictation.
3. Advanced group, comprising those who:
 - (a) Talk about matters of general interest.
 - (b) Read the newspaper.
 - (c) Write short business letters.

The size of each class will be a matter determined by the teacher. Some can handle a large number of workers but best results will be achieved with groups of about ten. The larger the group the more uniform should be the grade of the pupils.

Selection and Training of Teachers

Special care should be taken, in selecting teachers, for the success of classes in English depends largely on the quality of the teaching. When the teachers are of the same nationality or race as the pupils, attendance at classes will be larger and more constant than otherwise.

Moreover, when the teacher understands the linguistic difficulties of his pupils, he can succeed better with them. He should, however, use his native tongue but little in the work with pupils.

It is advisable to form teachers into normal classes for specialized training. At the Bethlehem Steel Company the normal class meets an hour and a half each week during the school term. At these conferences, problems and methods are discussed in detail. The teachers are taken through the plant to learn something of the processes in which their pupils are engaged, the tools used, and the working conditions. Special instruction is given them as to how to meet their men.

The importance of cordiality and sincerity in all their dealings with pupils is emphasized. Teachers are also instructed to make their classes informal and to teach the men "what they want to know."

Fostering Interest

The meetings must go with "pep." Every pupil should feel that he has found a new friend. The school must provide exceptional attractions to offset the natural weariness that comes from the hard work of the day. Regular social entertainments for the pupils and their friends in which the programs are made up largely by the pupils are productive of good results. In this way opportunity for the expression of the fine things in the national life of the various groups should be given. The folk dances of the various nations appeal to Americans and offer a splendid method of bringing the various nationalities together on a basis of friendship and co-operation.

The Problem of Attendance

After the classes have been organized, teachers will be confronted with the problem of securing attendance. An interpreter who is intelligent and sympathetic will be able to show the workers the advantages of the plan. He should dwell on the fact that the plan is co-operative and means progress and profit for themselves as well as benefit to the employer. Workers who are reluctant to join because they feel too old can be induced to take the course of 30 lessons for six weeks so that they may be enabled to get a fairly good working knowledge of English.

But under no circumstances, however, should a foreman be allowed to bulldoze employees into attendance at classes. The element of compulsion must be absent.

Language of the Classroom

The National Americanization Committee recommends the use of the English language exclusively in teaching, but gives a warning that "this method to be satisfactory must be completely and carefully organized and the material for the early lessons selected with great care." Emphasis should be placed on words that the pupil uses in his daily life.

Methods of Teaching

At first the method of teaching English may consist largely in getting the students to converse and to make up little oral or written compositions or "themes," as they are called, each consisting of a few simple sentences. The sentence rather than the single word is to be taken as the unit of language. Sentences should "follow one another in logical sequence in time, as this will be a great aid to the memory of the pupil," and should be arranged in groups of four or five each "so as to form resting places for the pupils." With beginners the teacher may use to advantage twenty-five to thirty "themes" of fifteen sentences each before organizing lessons in regular paragraph form.

Variety Aids Greatly

The importance of variety in review work is brought out by the committee and these suggestions made to the teacher:

1. Question the pupils, requiring answers that will use words taught in the sentences of the various themes.
2. Give commands, either orally or in written form on the blackboard, using words previously taught, and ask the pupil to execute the command and then tell what he did.
3. Let the pupils question each other about the lessons as soon as they have gained sufficient vocabulary.

4. Dramatize universal activities, such as buying a hat, applying for work, making a deposit in a savings bank.

Drill in Grammatical Expressions

Little time should be given to formal rules and definitions of grammar, but there should be much drilling in grammatical forms and expressions. "Sound drills are valuable to aid in the correction of foreign accent, enunciation, and pronunciation. Sound drills should center around words in the theme, but no pupil should practice the sounds until after the teacher has carefully shown how the sounds are developed." The study of sounds should be kept distinct from the reading exercise, otherwise the reading will lose its continuity and interest.

Oral instruction and practice in speaking should have first place in the program. After the ear is made familiar with the "theme," blackboards can be used and the lesson can be copied into note-books from the blackboards. In this procedure "use is made first, of the *ear in listening*; then *mouth in repeating*; then *eye in reading* from the blackboard, and finally to both *eye and hand* in copying into note-book."

Work of the Bethlehem Steel Corporation

One of the best plans for teaching English is that of the Bethlehem Steel Corporation. As experience with volunteer teachers proved unsatisfactory, the company employed teachers from Lehigh University and the Y. M. C. A. These instructors, who have proved to be very successful, receive \$2 a night. The plan for recruiting members of the English classes as described in the *National Efficiency Quarterly* for November, 1918, by J. R. Mulligan, who supervises the night classes, is somewhat as follows:

1. Favorable articles regarding the opening of the classes, work proposed, and benefits offered, are secured in the newspapers and foreign publications which circulate in the locality and are to be followed up by items as to the progress of the classes.

2. Personal calls are made on the pastors of churches to which the foreign-born belong and the plans discussed with them to obtain their co-operation and assistance in overcoming difficulties.

3. This is followed by personal visits with reliable interpreters to the various national societies and lodges representing the working force.

4. Announcements of classes are made in the churches at least two Sundays before the instruction begins and the pastors should be requested to urge members to join.

5. Posters in English and other languages are placed throughout the plant urging enrolment in the classes.

6. Talks are had with the foremen for the purpose of securing their co-operation in urging workers to attend the classes.

The plan during the course of the first lessons is to grade the pupils by nationalities. When they are able to speak English fairly well, nationalities are disregarded and the students are graded according to their ability. An interpreter is used in the first stages of the instruction. Three classifications of pupils are made:

1. Those who have had previous education in their own language.
2. Those uneducated but possessing knowledge of a little English.
3. Illiterates.

Two nights a week are devoted to the work. Attendance is checked by a system of red and yellow record cards. The

former are retained by the pupils and the latter are kept on file. The cards are numbered serially to represent class meetings, and the checking is done in the following manner. When the class assembles, those present turn their cards in to the clerk who punches the serial numbers in red and yellow cards. Cards are not punched for absent students.

The method of teaching is by means of visible objects. To keep up the enthusiasm of pupils, frequent entertainments furnished by the pupils are held during part of the lesson hour and occasionally cigars and cigarettes are passed around.

The Ford School

The Ford English School was started in May, 1914, with one teacher and two pupils. Within a short time there were 2,700 pupils. Since the opening of the school 14,000 men have graduated. The teachers are all Ford employees who volunteer their time. The course consists of 72 lessons, taught in 32 weeks, two hours a day on two days a week. Graduates of the course receive diplomas certifying that they can read, write, and speak English, sufficient for the ordinary conduct of their affairs. These diplomas are accepted by the judges of the United States courts when the holder applies for naturalization, as sufficient proof of knowledge of the English language. No further examination is required.

The method of teaching English is well worth noting because of its sound, practical quality. C. C. DeWitt, who has charge of English instruction at the Ford Company, makes it a point to have each lesson drive home some bit of practical information about matters in the daily life of the worker, in addition to increasing the pupils' vocabulary. "We show them how to work about a drill press with sleeves rolled up and a bow tie instead of a four-in-hand tie which gets caught in the machinery," says Mr. DeWitt. Several men lost their lives through wearing long ties; in the English lesson the point

is brought out that "safety first" ties are the only ones to wear. Everything is presented in dramatic form because much more can be acquired through the eye than through the ear. Drill is first given on one word, then two, then combinations of two or three words, and so on.

At this school employees are taught to speak English within six weeks. Since the school has been in operation, accidents in the factory have decreased 54 per cent. The employees are able to read safety notices and understand instructions.

The Goodyear Rubber Company's Plan

More than 900 foreigners have attended the classes recently started by the Goodyear Rubber Company, Akron, Ohio. The hours of the classes are arranged to suit the working hours of the men. During the war the school was in session five days of the week from 7 A.M. to 11 P.M. Classes are divided into two groups, one for elementary students and the other for advanced pupils. Instruction to beginners starts with the names of common objects which they generally see around them and introduces the adjectives and verbs used in ordinary conversation. Emphasis is placed upon conversational English. The advanced group is taught reading, spelling, and composition. For this group some of the lessons in civics and composition are taken from the history, literature, and folk stories of the native land of the student.

Other Factories Conducting Classes

At the Chester Shipbuilding Company, every man who enters the Americanization classes must deposit one dollar, not as tuition fee, but as evidence of his good faith in completing the course. The dollar is returned to him at that time. The lessons are planned to cover:

1. Conversational English.
2. Reading and writing.
3. Reading of shipyard bulletins, posters, and announcements.

Pupils are encouraged to add to their knowledge of words by discussing topics connected with their work.

An unusual method of teaching English is that practiced by the Cleveland-Cliffs Iron Company of Gwinn, Michigan, which gives daily instruction to foreign-born workers who are in the company's hospital. Forty-five minutes are devoted each day to the instruction of each patient and he is given some material to prepare for the following day.

In order to narrow the gulf which exists between the foreign-born and their children born in this country, the American Rolling Mill Company wisely tries to secure the aid of the children in inducing their parents to learn the English language. To stimulate this, prize-letter contests were conducted in the public schools. The president of the company offered ten silk flags for the best letters from children in grades four to eight. The letters were written to fathers and mothers stating reasons why they ought to learn the English language and become American citizens.

Classes in English are conducted on company time, during the day and in the evening. Interest in these classes is stimulated by Americanization meetings in which the foreign societies take part. A unique feature of the company's plan is the class for foreign-born women. That the classes have been a success is proved by the reduction in accidents and the increasing good spirit among the workers.

The Willard Storage Battery Company, Cleveland, issues the following interesting bulletin to its employees:

Education is the great leveler, and, the beauty of it is, it always levels up. Men who speak foreign tongues find

as soon as they can handle English that new and better opportunities open for them.

To you Americans—what are you doing to help the man who works beside you who cannot speak English? Are you urging upon him the necessity and advantages of attending our classes in order to learn the English language? These classes are open Monday, Wednesday, and Friday at 5 P.M.

Classes in English at the Norton Company, Worcester, Massachusetts, meet twice a week during regular working hours. The company appeals to its English speaking employees to urge the foreign-born to learn English. Assistance is given in preparation for naturalization.

Half-time pay is offered to employees of a large rubber manufacturing plant in Connecticut for attendance at English classes which come at noon, in the afternoon, and in the evening. Prizes are offered to encourage better work. Instruction is conducted along conversational lines and is related to the daily life of the men at home, in the plant, and in the community.

At the Hamilton Mills, Southbridge, Massachusetts, the work of the school for foreign-born employees is considered so important that the period from 4:30 to 5:30 P.M. is given to the work. The last half-hour of this period is contributed by the company provided workers devote a half-hour of their own time for the same purpose.

At the L. Candee Company in New Haven, pupils are paid 25 cents a lesson. The sessions are one and a half hours each. Foremen are urged to use only English in talking to employees. The classes co-operate closely with the work of Americanization.

Co-operation with Public Schools

One method of handling the school work is through co-operation with the public schools. When a plant does not

have its own classes it may follow the example of the Converse Rubber Shoe Company of Malden, Massachusetts, which pays its men overtime for evening school work in the public schools. Foreign-born workers are urged through the employees' paper and the foremen to take advantage of this opportunity

The Carnegie Steel Company of Youngstown, Ohio, encourages its employees to attend the night schools held in the assembly hall of the plant and takes attendance at such classes into consideration when planning promotions.

Using Company Time

Night schools in cities are nearly always poorly attended. The factory worker is usually too tired at the end of the workday to absorb much from evening instruction, and experience has shown that it is only those who are naturally studious whose attendance is continuous. With this in view a large number of plants furnish the room and equipment for the instruction at the plant on company time, securing the teachers from the local school authorities. Other plants secure their teachers from the factory force on a volunteer basis or engage teachers who are specially paid.

Teaching English Pays

Facts tending to show that it pays to teach the foreigner English have been introduced throughout this chapter. The experience of many manufacturers proves that a knowledge of English on the part of the foreigner results in fewer accidents. Less products are wasted. But most important of all, the effort pays in better plant spirit and co-operation between management and workers. In summing up the case it might be well to add the testimony of three companies whose activities in the industrial field are widely separated.

Records of the Commonwealth Steel Company show that at one time 80 per cent of the injuries received by their

workmen were among those who spoke no English although these employees constituted only 34 per cent of the force.

The Joseph and Feiss Company of Cleveland, clothing manufacturers, makes this statement:

We have been able to secure telling results in better co-operation of our workers, more intelligent handling of work, and clearer understanding of factory problems, such as steadiness of attendance. Altogether we cannot speak too enthusiastically of the actual value in dollars and cents of English classes in factories.

The following significant statement by Harold McCormick, President of the International Harvester Company, was published in the *National Efficiency Quarterly*, November, 1918.

A working knowledge of English is as essential to the employee's service as to his citizenship. Without it he cannot be taught to protect himself adequately against exploitation of his ignorance on the outside. Lacking that knowledge he cannot fully grasp either the industrial or the social opportunities of his adopted country and must be denied much of the opportunity it offers for self-development. The teaching of English to alien-born employees is, therefore, a primary and fundamental duty resting upon all American employers—a duty whose competent discharge is bound to bring full compensation to all the parties and elements in interest.

CHAPTER XI

FURTHER AIDS FOR AMERICANIZATION

Study of American Institutions

A program of Americanization properly begins with instruction in the English language, but that is not enough. The rights and duties of citizenship should be taught. Moreover, everyone, whether naturalized or not, has certain rights or privileges under our government which should be taught together with their corresponding obligations.

At the Goodyear Rubber Company, when the men approach the end of the course in English, they are prepared for naturalization by studying the forms of government—municipal, state, and national; the rights and duties of citizenship; and important facts in the history of the United States.

Necessity for a Well-Balanced Educational Plan

An elementary technical and cultural education is also important. Although the function of the factory is primarily production and not education, the fact that education increases production has been incontestably proved. An effort to educate foreign employees, however, may be too much of a task for the management to assume unaided. In this connection the work of the D. E. Sicher Company may prove suggestive.

The school in the plant is under the joint operation of the company and the New York Board of Education. The board supplies the teachers while the company is responsible for equipment and incentives. Pupils receive full-time pay for attendance at classes, such attendance being voluntary.

Forty-five minutes are devoted each day to practical subjects intended to make the worker more efficient and industrious, to give her an intelligent, impartial understanding of American history and institutions, and to help make her an efficient home-maker.

The course of study for the illiterate workers' class, outlined below, offers excellent suggestions for other plants:

I. English

1. Reading
2. Spelling
3. Writing
4. Geography
5. Methods of communication
 - (a) Correspondence
 - Business letters
 - Social letters
 - Post-office regulations
 - (b) Telephoning
 - (c) Telegraphing

II. Hygiene

1. Personal cleanliness
2. Physical culture (gymnastics)
3. Food—choice, food value, cooking, serving
4. Emergencies, treatment of injured

III. Civics

1. Systems of government
 - (a) Merits of democratic government
 - (b) Patriotism
 - (c) Citizenship
2. History
 - (a) Origin of legal holidays
 - (b) Lives of statesmen

IV. Mathematics

1. Four fundamental operations in arithmetic
2. Tables of weights and measures
3. Money; bills and currency
4. Work reports

5. Personal expense accounts
6. Bank accounts
- V. Practical application of language
 1. Evolution of an undergarment
 - (a) Growth of cotton plant
 - (b) Manufacture
 - Spinning operation
 - Bleaching
 - (c) Weaving
 - (d) Shipping
 2. Alphabet as a guide to common things
 - (a) Advertisements
 - (b) Dictionary
 - (c) Directory

In addition to the school work the firm encourages social hours, wholesome entertainment, dancing, gymnasium work, and other activities which makes for social development.¹

Utilizing All Means of Approach

From one point of view it may be said that every subject discussed in this book is a vital part of any Americanization plan. Obversely, no particular phase of the problem can be treated alone.

The work of the American Rolling Mill Company is based on the right principles. All the activities of the personal relations department, with its divisions—medical, safety and sanitation, mutual interest, employment and training—each in charge of a specialist, are used in the Americanizing process.

¹ The following companies, among others, are also carrying on Americanization work in their plants: Sidney Blumenthal Company, Shelton, Conn.; Bird and Son, Inc., East Walpole, Mass.; Yale and Towne Manufacturing Company, Stamford, Conn.; Western Electric Company, Chicago, Ill.; Commonwealth Steel Company, Granite City, Ill.; Walter M. Lowney Co., Boston, Mass.; Illinois Steel Works, Joliet, Ill.; Inland Steel Company, East Chicago, Ill.; General Chemical Company, Bayonne, N. J.; General Electric Company, Schenectady, N. Y.; Joseph and Feiss Company, Cleveland, Ohio; United States Steel Corporation, Braddock, Pa.; Greenfield Tap and Die Corporation, Greenfield, Mass.; Ellsworth-Collieries Company, Ellsworth, Pa.; Pressed Steel Car Company, South Bethlehem, Pa.; Graton and Knight Manufacturing Company, Worcester, Mass.; Strathmore Paper Company, Woronoco, Mass.; Hartford Rubber Works Company, Hartford, Conn.; Swift and Company, Chicago, Ill.; and American Optical Company, Southbridge, Mass.

The whole program comes under the supervision of the vice-president. A foreign club, supported by the company, offers a place for foreign societies to meet and provides entertainments. The secretary of the club is a capable linguist and devotes his whole time to getting the foreign-born workers adjusted to this new country.

A strong influence on the workers is the housing policy of the company which provides several hundred neat cottages that are sold or rented to foreign-born workers on easy payments. A large percentage of the men have become homeowners.

Factory Activities

Under the most favorable conditions, Americanization is difficult work. Energetic employers will look round for all sources from which aid may be derived. Every possible activity within the factory in which the worker can take part and which may facilitate the work should be tried. For when co-operation of managers with workmen is a feature of the work the probability of success is greater than when the work is carried on single-handed. This fact cannot receive too great emphasis.

Noon-Hour Meetings

Noon-hour talks, for instance, are a valuable means of impressing the foreign-born with some of our American ways. The plan is to get good speakers representing the various nationalities to dwell on the importance of learning about America and becoming citizens. In some plants, as in the United States Metal Refining Company of East Chicago, these talks are accompanied by suitable motion pictures. There are many good films which are available at small expense.²

² The Community Motion Picture Bureau, 46 West 24th Street, New York, makes a specialty of selected films for educational purposes.



77. I FILL the tub with water.

I fill the tub with water.

(POLISH)

Aj fyl di tob uyt uoter
Ja NAPEŁNIAM wannę wodą.

(HUNGARIAN)

Aj fill tő tab wlt woater.
En MEGTÖLTÖM a fürdőkádat vízzel.

(ITALIAN)

Ai fìl dhì túb uidh uotr.
RIEMPIO la bagneruola d'acqua.

(YIDDISH)

77 איי פיל די טאב וויט וואסער.
איינעם און די טאב וואסער.



78. I TAKE off my clothes.

I take off my clothes.

(POLISH)

Aj tejf of maj klouz
Ja ZDEJMUJĘ moje ubranie.

(HUNGARIAN)

Aj ték aff máj klótz
En LEVETEM a ruháimat.

(ITALIAN)

Ai tèc af mai clodhr.
LEVO via i miei vestiti.

(YIDDISH)

78 איי טהייפ אפ מאי קלויז.
איינעם און די טהייפ אפ מאי קלויז.



79. I GET into the bath tub.

I get into the bath tub.

(POLISH)

Aj giet yntu di bet tob
Ja WCHODZĘ do wanny.

(HUNGARIAN)

Aj get intu tő bettab.
BEMEGYEK a fürdőkádba.

(ITALIAN)

Ai ghet intu dhì beth tób.
Io mi METTO nella bagneruola.

(YIDDISH)

79 איי געט אינטו די בעט טאב.
איינעם און די געט אינטו די בעט טאב.



80. I WASH myself with soap.

I wash myself with soap.

(POLISH)

Aj uosz majself uyt soup
Ja MYJĘ się mydlem.

(HUNGARIAN)

Aj was májszelf wit szop.
En MEGMOSOM magam szappannal.

(ITALIAN)

Ai uòsci maissèlf uidh soup.
Io mi LAVO con sapone.

(YIDDISH)

80 איי וואש מאיסעלף וויט סאפ.
איינעם און די וואש מאיסעלף וויט סאפ.

Figure 8.—Pictorial English Lessons with Phonetic Translations.

One such set of films is called the "Development of our Nation" and covers such topics as the Discovering of America, the Settlement of the Colonies, Lincoln, Our International Mind, the Conservation of Home—and of Health, and The Service of the Group; this latter illustrating the growth of the community idea and the new spirit of getting together for work and play for the welfare of all.

Plant Newspapers

The employees' newspaper or plant magazine (see Chapter XX) is a valuable asset in this work. Where there is a large number of non-English-speaking workers in a plant, it has been found useful to devote a few columns of the paper to Americanization work, beginning with talks in the language of the workers, accompanied by the English translation in parallel columns. Later on everything is printed in English. Another method is to print pictorial lessons in English giving phonetic translations in several languages. An illustration (Figure 8) is here given, of a lesson which appeared in "The Day's Work" published for foreign-born students.

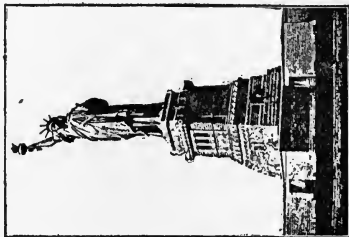
Stories published in the plant paper of successful men who emigrated to this country and made their way to the front ranks of Americans add to the effectiveness of Americanization work. Many learn better by force of example than by didactic methods.

Pay Envelopes

A very effective way in which to reach foreign-born workers is through the pay envelope. A message to the worker in this way is sure to get his attention. Some firms, like the Pennsylvania Coal and Coke Company, Cresson, Pennsylvania, the W. H. McElwain Company, the American Chain Company, H. C. Frick Coke Company, the Scovill Manufacturing Company, Waterbury, Connecticut, and the DuPont Fabrikoid

FOR BETTER CITIZENSHIP

What the First Paper of Citizenship Is



AMERICA!

LIBERTY! OPPORTUNITY!

Share in These by Becoming a Citizen

Circular No. 4. — Pay Envelope Series

Why Become an American Citizen

BECAUSE: If you are a citizen—

- 1.—You have the right to vote and help make the laws which govern our nation.
- 2.—Your children become citizens and have all the rights and privileges of citizens.
- 3.—You have the constant protection of the government for yourself, your family and your property in America and in other countries.
- 4.—You have the knowledge that you really belong in America, and that your rights and privileges are equal with those of any native born citizen of this country.

BE AT HOME IN AMERICA
WORK FOR ITS WELFARE AND YOUR OWN

*You will receive every first day a circular
"FOR BETTER CITIZENSHIP"
Read each one carefully*

PREPARED BY THE
National Americanization Committee
New York City

FOR BETTER CITIZENSHIP

What Are the Requirements for Citizenship?



NATIONAL CAPITOL AT WASHINGTON, D. C.

AMERICA!

You Live in America
You Work in America
Why Not Be a Part of America?
Citizenship Makes You a Part of America

Circular No. 5. — Pay Envelope Series

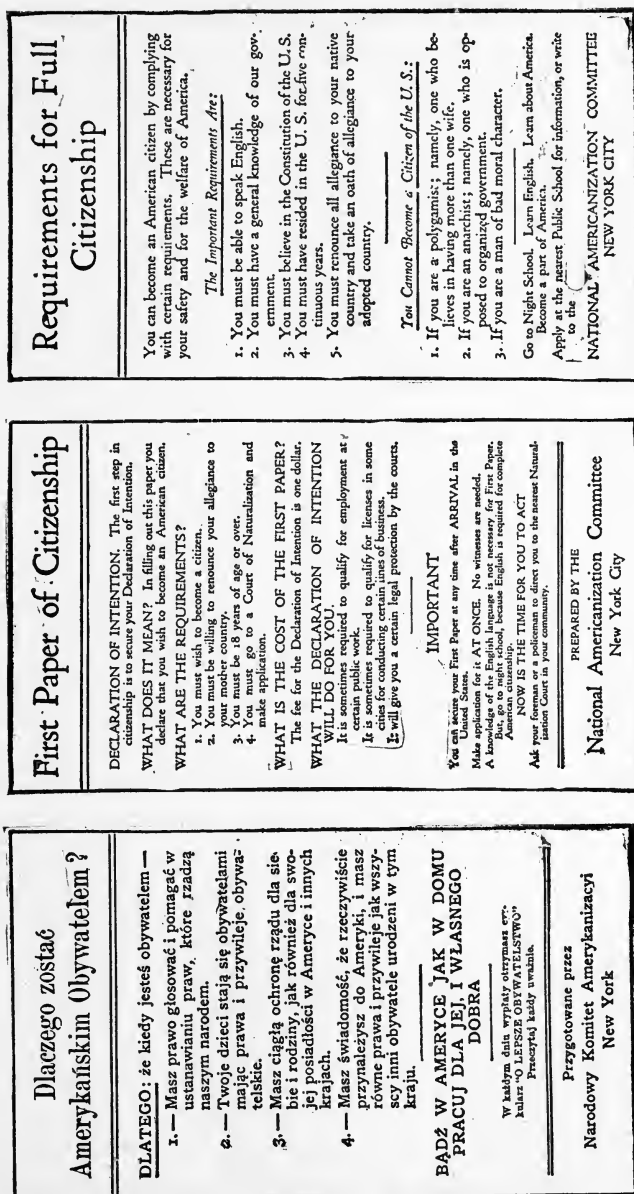


Figure 9. Specimen Circulars Urging Citizenship

When inserted in the pay envelope of the foreign-born worker, these circulars afford an effective approach to the subject of citizenship.

Company, have found a series of civic lesson leaflets used in this way productive of good results. These leaflets, illustrations of which are here given, may be obtained from the National Americanization Committee, New York City, (see Figure 9) and are available in several languages. A plan adopted by the General Fireproofing Company, Youngstown, Ohio, is that of inserting in the pay envelope a special folder urging upon the men the advantages of learning English. This company has printed a booklet called "A Permanent Job" and has had it translated into foreign languages so that company policies and opportunities are made clear to every worker.

Plant Census

The plant census is of great assistance to employers who want to start Americanization work right, especially in

Name _____	
Country of Birth _____	How long in U. S. _____
Family here _____	English: Speaks _____ Reads _____ Writes _____
Knowledge of what languages _____	

Naturalized _____	1st papers (date) _____ 2d papers (date) _____
Intends to remain in U. S. _____	Desires citizenship _____
Desires instruction in English _____	
Schools attended _____	

Date of this information _____	

Figure 10. Americanization Census Card

The use of this card facilitates the work of determining the number and nationality of foreign-born workers in the plant, the extent of their education, and how far they have gone in becoming naturalized citizens.

determining the number and nationality of foreign-born, the extent of their education, and how far they have gone in

becoming naturalized citizens. In making such a census an Americanization card (see Figure 10) will be helpful.

These cards should be summarized on a blank similar to that reproduced here (see Figure 11). It would be well to make such a census each year.

The Brown and Sharpe Company's Work

A noteworthy effort in Americanization is the work of the Brown and Sharpe Manufacturing Company at Providence. The first step was a naturalization census of employees in conjunction with a campaign to impress the men with the importance of citizenship. Following the census, a series of announcements and follow-up letters were sent to employees, noon-hour talks were given to arouse the interest of workmen, and the foremen met in conference, with the president of the company as chairman, to discuss methods of arousing interest. The foremen were held responsible for the interest of those coming under their supervision. A special leaflet, "Questions and Answers for Coming Citizens," formed part of the campaign. Company time is allowed for filling out applications for naturalization.

Out of 1,312 non-citizens, 1,106 applied for their papers and those who did not apply were either too young or too old or intended returning soon to the country of their birth.

Naturalization

There is one danger in connection with naturalizing the worker, however, that should be guarded against. Some firms now require for employment that an applicant be naturalized, and that persons already employed take out their second papers. One such firm boasts of its "100 per cent Americanization" as meaning complete citizenship of its workers. Such a practice indicates a confused idea on the part of the firm of what Americanization means. Naturalization does not by itself

produce Americans. It gives political rights but it does not insure civic responsibility. Compulsory naturalization, like compulsory attendance at classes, will not get very far in promoting good-will or labor stability. It ignores the fundamental purpose of Americanization work as previously discussed.

It is most important that naturalization should be encouraged and assisted. We want the foreign-born to become a citizen because, as Secretary Lane says:

We want the people who live here to feel a responsibility for the conditions that exist here, and that their complaint is against themselves, not against another class in the community. Because if America is not good enough to hold the entire loyalty and affection of anyone he should make his living in the country which has his affection and loyalty.

But we want only citizens who understand their obligations. If our new citizens do not appreciate their duties, the results may be disastrous, for these new voters will become the easy prey of designing politicians, and others who seek to impose impossible schemes upon the country. The wholesale naturalization of those who do not fully understand our ideals is likely to make the ballot a tool of destruction rather than an instrument for the common good. Americanization cannot be brought about through coercion or economic pressure. Democracy does not grow in that way.

Delaware Study of the Naturalization Problem

A better way of approaching the problem was worked out recently by the state of Delaware through its Council of Defense. The council discovered that in the years 1910 to 1918, only 967 foreign-born persons were naturalized in the state and 300 of these were from English-speaking countries; and that 8.1 per cent of the whole population of the state was illiterate.

A census of aliens showed that in one industry employing 227 foreign-born workers, 216 had not been naturalized and 193 had never taken out their first papers. Most of these had been in the country at least ten years. In another industry employing 1,181 foreign-born, only 256 were naturalized. Of the total employed 213 could not read or write their own language and 513 were unable to speak English. Over 1 per cent of the whole population of the state is represented by the families of the foreign-born workers in this one plant.

Co-operating with the Community

The Delaware Council of Defense came to the conclusion that Americanization work in factories is apt to be futile if not closely linked up with the community as the final beneficiary of such effort. As the report states, "All Americanization work, whether official or unofficial, must be based upon the definitely ascertained problem in the locality—the number there, their degree of education, their particular need, their place of residence, and of work." Unless workers have the living, working, housing, and schooling conditions which will make them content to stay in an industrial community with their wives and children, industry will suffer and so will the American nation. Social unrest is born of indifference to social needs. Employers must take cognizance of conditions which promote the "drifter" and the casual and make him a danger to society. They must relate their business to the community welfare so that the community may offer them the best possible kind of worker, the worker who becomes an asset rather than a liability.

The employers of a community should whenever possible get together with representatives of the working forces and of the community as a whole, to work out plans and methods of meeting the problems of the alien in industry. Much effort, time, and money will be saved by such co-operation,

and better results will come than if each agency operated alone.

The council also believes that:

A state policy towards the foreign-born is a desirable and perhaps essential element in an Americanization scheme, and that it is the duty of the employer to study his labor turnover so carefully that he will be able to determine wherein his responsibility lies for the wastage of labor and men. Legislation regarding immigrants should be based upon facts brought out by careful studies made by employers in their plants.

Assistance from Local Governments

A large and growing number of cities and states are co-operating with industry and the federal government in making Americanization measures effective. To mention a few notable instances, the city of Chicago offers three types of Americanization work:

1. The public evening schools of which there are 33 centers.
2. Factory classes. (16 factories are co-operating with the public schools in teaching English.)
3. Day classes for adult foreign-born women at school buildings.

Cleveland has adopted the principle of sending teachers to places where foreign-born persons work. Akron has an Americanization committee of one hundred representing practically every industrial interest and racial group in the city.

Excellent work in Americanization has been done by the Solvay Process Company, Syracuse, New York, where the classes are conducted in a building near the factory in co-operation with the community. Workers who attend these classes receive their regular wages for the time. Courses

of study are shaped with reference to the special needs of the community.

The Public Library

The public library is an agency of great value in helping foreign-born. Libraries can help materially by setting aside certain books about this country, its ideals, literature, lives of great Americans, and other phases in American life. It would be well for those who conduct classes for workers to take their pupils through the local library, explain how books may be drawn, and point out the different kinds of books which are available. Many libraries arrange exhibits of interest and value to the worker. An effective method of developing the interest of workmen in drawing books from the library is to arrange therein special exhibits of handicrafts and arts of the various nations. Such exhibits have the additional effect of increasing the respect of the American worker towards the men who come from the lands represented by the exhibit.

Assistance from Chambers of Commerce

Great impetus to the Americanization movement is being given by chambers of commerce, and by other trade and civic bodies in all parts of the country. These associations of business men are realizing the importance of protecting the newcomer in our land from the influences which are at work to exploit his ignorance of our language and customs. Committees working on a practical basis, are getting results which reflect themselves in marked ways upon their communities. The Detroit Board of Commerce, for example, arranged an "America First" pageant on Washington's Birthday in 1917. There were 200 performers who pictured what the foreigners had contributed to art and recreation in America and what free America offered to all. All of the recreation centers

were asked to send their representatives, native and foreign, to this pageant to learn of the forces which bring immigrants to America's shores. Liberty, Education, the Public Library, Industry and Recreation, and Opportunity were personified and as the representatives of the various nations came upon the scene, the leader of each group exchanged the foreign flag for that of the United States.

Syracuse, New York, through its Chamber of Commerce Committee, adopted a very comprehensive plan which included a city-wide campaign with the co-operation of employers to increase the attendance at public night schools, the establishment of information and complaint bureaus for immigrants in each night school, the preparation of a guide for immigrants to be distributed free to alien workers and direct aid in making and filing papers for naturalization.

The Chamber of Commerce of Cleveland has been very active in promoting the Americanization program, a feature of which is an Americanization Institute for teachers of immigrant classes. The enrolment of this Institute numbers over 450.

The Chamber of Commerce of the United States has done good work in assisting local trade organizations in planning Americanization activities.

Massachusetts Department of University Extension Bulletin

The whole question of how industries may co-operate with those in charge of public education in drawing out the best in the immigrant, and in making him an active part of the citizenship of this country is treated in a special bulletin of the Department of University Extension of Massachusetts which urges the following points:

1. Establish active co-operation with local school boards to expand the educational system by establishing evening schools, day

- classes, or factory classes for immigrant employees wherever necessary and practicable.
2. Assist the local school boards to obtain sufficient funds from the public appropriations for conducting this work wherever the present sum available is inadequate.
 3. Appoint an official, superintendent, or foreman, to be charged with the duty of urging immigrant employees to attend school, learn English, and get instruction in civics. Such official can check up attendance and act as a clearing-house of information for employees and for teachers and principals.
 4. Register and list for the use of school officials and teachers all employees who cannot read or write English. As new employees in need of English instruction are hired, their names should be added to this list.
 5. Advertise the school facilities:
 - (a) By notices printed in the foreign languages inserted in the pay envelopes.
 - (b) By notices on the bulletin boards.
 - (c) By personal solicitation on the part of foremen or fellow-workmen.
 - (d) By "plant meetings" at which school officials and others talk to the employees on the advantages of learning to speak, read, and write English.
 6. Adopt one of the following policies:
 - (a) Give bonus for regular attendance upon English classes.
 - (b) Increase wages of immigrant employees making themselves more efficient by learning English.
 - (c) Give preference in making promotions to those increasing their efficiency by learning English.
 - (d) Allow time off on the days the school is in session.
 7. Co-operate with all agencies in Massachusetts and local community in the effort to make English the language of Massachusetts.
 8. Preach the doctrine that each individual should be willing to learn English for the privileges of liberty he enjoys in this country, and the opportunities he receives for himself, his children, and his fellow countrymen.

CHAPTER XII

THE WORKER'S HEALTH

The Conservation of Human Energy

When modern industrial management began to concern itself actively with questions of the worker's health and physical fitness, it did not do so for sentimental, but for truly scientific reasons. What really underlies this interest in working conditions is a determination to conserve man-power and put an end to the waste of human energy. Now that the world war has consumed so many millions of productive men in their prime, and incapacitated many millions more, the whole question has taken on a new importance. In England at the present time the national health policy with regard to working and living conditions of the industrial population is receiving a great deal of attention. Before the war there was scarcely any interest in the subject. There is another requirement to be met: shorter hours now common in industry necessitate greater intensity and intelligence of effort. This can be accomplished only under good salutary working conditions.

Benefits Accruing to Industry

To a management that views its problem broadly, men are the first consideration. The introduction of present-day production methods and tools led to a new emphasis on the worker's physical surroundings and personal condition, for the very life of costly machine tools and equipment depends, as the management well knows, on the physical and mental condition of the men who use them. We can go further and maintain that the mental health, the attitude of the worker

toward his work and his associates, is founded on the state of the worker's physical health. These mental attitudes find expression in the daily workshop contact, and thousands of unnoticed but decisive troubles arise from failure to take them into account. No organization can long afford the explosions resulting from overstrained nerves, careless personal habits, and the wear and tear of incompatible tempers.

Spirit and ambition vanish when the worker's health is poor. On the other hand, as Mackenzie King has pointed out, industrial peace and industrial efficiency are oftentimes the result of salutary working conditions. Someone has shown that bank clearings vary in different parts of the country in proportion to death rates. It is very clear that wages, work capacity, and productivity are contingent upon the worker's health.

Many up-to-date managers take pride in the attractiveness of the physical environment which their plants afford, and in the general fit appearance of their working forces, and not a few managers find a priceless reward in knowing that work conditions are an aid rather than a hindrance to well-being. When employers declare that they are engaged in building men rather than turning out products, they mean that industrial activity with them is a form of community service. They measure their prosperity by the advance which their fellow-workers, their employees, make in health, contentment, skill, and citizenship.

But there are immediate practical results, which should never be overlooked. Man maintenance pays, for it is the first step in plant maintenance. In a race between a large bank account and a solid body of men welded together for a common purpose, the latter are sure to win. The size of the business is not as important in the long run as the man-building policy which directs it. The force of this truth has come home to many a man too late.

New Qualities Required of Managers

Within recent years there have been great changes in the specifications used in the appointment of men to supervisory positions. As always, their technical competence has been given due weight, but in addition, questions such as these would be taken into account: How does he treat men? Is he considerate and observant of others? Does he upset others by show of temper? Will he get "on the nerves" of his men? Many a labor trouble can be dated from the time a foreman came into power whose methods were a burden to the flesh.

The fitness of a manager to manage is tested by the breadth of his grasp and definition of his job. If he be a first-rate technical man concerned exclusively with his own specialty, it may be well to give him charge of the technical work, but it would be a mistake to place a body of men under him unless he can grow to a larger conception of his relation and the relation of his own specialty to those who are to take his orders.

A great thinker has said: "Health is contagious." Obviously the man in charge of others has a peculiar responsibility for reflecting the fitness, self-control, and sustained and disciplined skill he expects of others.

Loss of Time from Ill Health, Accidents, etc.

It is clear to all persons acquainted with industrial conditions that not only industry, but the community, and the individual worker suffer through the loss of the worker's time from ill health, accidents, etc. While this loss cannot be computed in dollars and cents for any number of establishments, the total is very large. Industry has a decreased production, not only because experienced workers may be laid off, but because inexperienced persons may, and often must, be employed in their stead with the added cost of training and lessened output. The community suffers because some

of its members are enforcedly idle, and its prosperity to that degree is affected. With this in mind let us consider briefly a few of the actual facts.

Dean John H. Wigmore of the Northwestern University School of Law, is authority for the statement that a majority of the civil cases in the courts of law today arise from injury by industrial accidents. It is difficult to appreciate the great cost of this fact to the state, the worker, and the employer, and the loss of time consumed in litigation by all the parties involved.

Number of Industrial Accidents

The state of Massachusetts has about 175,000 cases of industrial accidents reported to its Industrial Accident Board each year, and the average loss of time per person is upwards of one week. One hundred and seventy-five thousand weeks at \$20 per week, as a fair estimate, means \$3,500,000. Yet this but poorly indicates the total loss arising from the situation.

The basis for the need of social insurance is unemployment, a considerable amount of which is caused by accident and by sickness arising from conditions of ill health in industry. The following table from "Social Insurance," by I. M. Rubinow, shows the situation, practically up to 1910, in European countries.

The imposing fact of this table is that in eleven European countries annually some 2,000,000 industrial accidents occur, and of these over 22,000 are fatal.

Effect Upon Labor

The individual worker suffers most of all, because temporary idleness deprives him of daily earnings and lessens his efficiency in his particular work. In many cases accidents are of such a nature as to make it necessary for the worker

to learn a new occupation, with the possible loss of several years' time. Accident insurance and social insurance are striving to ameliorate these evils.

ANNUAL NUMBER OF INDUSTRIAL ACCIDENTS IN THE MAIN EUROPEAN COUNTRIES

Country	Year	ACCIDENTS	
		Total No.	Fatal
Austria.....	1909	129,186	1,252
Belgium.....	1908	159,499	510
Denmark.....	1911	3,869	207
France.....	1909	434,450	3,101
Germany.....	1910	672,961	8,857
Great Britain.....	1910	167,653	4,704
Italy.....	1910	227,768	759
Norway.....	1909	5,909	136
Russia.....	1906	212,167	1,834
Spain.....	1909	28,944	210
Sweden.....	1906	15,041	249

In 1910 the federal bureau of labor conducted an investigation of the causes of unemployment, dealing with 24,402 representative wage-earners' families. The following facts show the part that accident and sickness play in unemployment, probably at much the same rates in 1919 as in 1910.

New Conception of Health Work

A point to be specially noticed in regard to these statistics is that it is not merely accidents which count. It is significant that at first the work of the various plant health departments consisted almost exclusively of taking care of injuries resulting from accidents. Gradually, however, the fact came to be recognized that the general level of health was also to be watched and safeguarded in the interest of good production. The results of newly established medical departments that

worked along these lines were too conspicuously good for any doubt to be entertained as to the value of such activities. What had hitherto been guesswork with respect to the human factors in sustained production gave way to data such as we have summarized in this chapter. Records of attendance when analyzed afforded a new insight into the problems of organization.

PER CENT OF HEADS OF 12,154 FAMILIES OF WORKINGMEN
IDLE IN 1910, BY PRINCIPAL CAUSES

Causes of Idleness	Per Cent Idle Based on Heads of Families	Average Weeks Idle
Accident.....	1.66	8.98
Bad weather.....	2.25	9.32
Establishment closed.....	4.30	8.58
Sickness.....	22.54	7.71
Sickness and establishment closed.....	.95	11.91
Sickness and slack work.....	1.67	10.33
Sickness and vacation.....	1.11	5.32
Sickness and unable to get work.....	3.70	14.15
Slack work.....	13.05	9.79
Strike.....	2.07	9.65
Unable to get work.....	33.29	10.90
Vacation.....	6.45	2.61

This new conception of the value of the health of the worker led to the study of the working and living conditions of the industrial population, for in order to maintain a high standard of health among the workers, right sanitary and hygienic arrangements must be made (see Appendix C). It is this preventive, as distinguished from remedial treatment of industrial diseases that is demanding the attention of industry at the present time. This is especially true when working conditions may lead to industrial or occupational diseases.

There are thus two principal phases of the health work in a progressive plant:

1. Giving the worker medical service and supervision.
2. Improving and maintaining healthful working conditions.

Industrial Medicine—The First Phase

The first phase, commonly known as industrial medicine, embraces a wide range of medical activities including diagnostics, internal medicine, emergency and orthopedic surgery, Roentgenology, laboratory technic and interpretation, orthodontia, dental prophylaxis, the well-known specialties of the eye, ear, nose, and throat, and the other branches of practice.

Industrial Hygiene—The Second Phase

With the increased emphasis on the physical condition of the worker has come an enlightened attitude on the question of the worker's physical surroundings, and so the second phase of health work is becoming increasingly important. In the main, industrial hygiene has to do with the lighting and ventilation of the shop, cleanliness, and right sanitary provisions—toilets, lockers, drinking fountains, and other similar arrangements. Not only are these conditions important in the shop, but equally so in the home of the worker and naturally in the community.

The Industrial Physician—A New Profession

So important is the work of guarding the health of employees that a practically new profession of industrial physician has arisen and is receiving the attention of the best minds in the practice of medicine as well as the earnest consideration of the leaders of industry.

The industrial physician has a perfectly definite function

to perform. His work allies itself with the other work of the employer in making greater output possible. He is concerned with the work of placement of employees, safety activity and the elimination of hazards caused by physical deformities, fatigue, and the nature of the tasks engaged in by the worker. His duties include the protection of employees from communicable disease and the prevention and treatment of minor ills which cause loss of time and production. Where the concern is large, surgical treatment of injuries is one of the responsibilities placed upon him. Or there may be problems of community sanitation which require his service. In short, everything which affects or may affect the health of the worker and his steady attendance on his job comes within the field of the industrial physician.

There are several types of industrial physicians. Owing to the lack of well-defined standards we have all sorts of trained and untrained nurses placed in positions of responsibility in the handling of medical cases in industrial plants. We find physicians who have no personality, no educational or scientific background, no initiative, men who are classed as "finger wrappers" by the medical profession. On the other hand we find men of capacity and ability who are specially fitted for the new profession and who are devoting their lives to it.

Many special medical departments which deal with all the health problems of the worker might be mentioned. At the Eastman Kodak Company, for example, the medical department takes immediate and subsequent care of all injuries to employees incurred while at work; gives immediate attention to cases of illness occurring at the various plants, and if it is found necessary to send the individual home he is referred to his own physician. All applicants for employment are given physical examinations. All employees on the pay-roll are given periodic examinations. A follow-up system of re-

examinations of defectives is in operation to make sure that medical or hygienic advice given is carried out. Where absence from work is due to illness a representative of the medical department makes personal visits to the home of the worker.

Legislation versus Voluntary Action

If business judgment does not bring about the needed physical provisions, legislation will probably do so. Hundreds of laws bearing on the subject of health and human conservation have been passed within the past decade. Strong efforts are now being made toward securing standard enactments that will bring under state control the conditions that surround workers in mills, mines, lumber camps, shops, and other places. Progressive organizations, however, will not wait for legislative standards to tell them what to do. As was true in the case of workmen's compensation laws, they will keep far ahead of legal requirements.

CHAPTER XIII

ORGANIZING A PLANT HEALTH DEPARTMENT

Work of the Health Department

The increased attention being given by employers to improving industrial relations is finding expression in the extension of medical work with employees through organized departments for the purpose. The extent of the work in different plants varies largely according to their nature and size. Medical service ranges from the small first-aid room or industrial clinic to the well-equipped modern hospital with a full staff and assistants in the case of large enterprises which are responsible for the existence of the community surrounding them.

The field of industrial medicine is widening to include many activities which heretofore were foreign to industrial organization. The work of a modern health department includes:

1. Service for employees who need attention during the day.
2. Regular inspection of plant conditions to discover sources of disease or conditions dangerous to the physical welfare of workers.
3. Physical examinations of new and old employees.
4. Co-operation in the matter of restoring the productive capacity of the injured and providing for compensation for such injuries.
5. Co-operation with the foremen on the health problems of workers.

6. Co-operation with the health authorities of the city, state, and nation.
7. Scientific studies of fatigue, occupational disease, and methods of treatment of injuries as well as their prevention.
8. Health education of employees.
9. Home treatment of employees who are ill or injured.
10. Follow-up of employees who return to the plant after serious illness or physical disability.

Not only does the health department function as outlined above but it has a definite responsibility in connection with the employment department and the service department in seeing that workers are properly placed and the turnover of labor reduced.

Relation to the Plant

The first question that comes up in a discussion of the organization of the health department is that concerning its relation to the rest of the organization of the plant. To whom should the head of this department report? The answer to this can hardly be derived from a study of the experience of industrial concerns owing to the haphazard manner in which health departments have come into being. Dr. C. D. Selby of the United States Health Service recently made a study¹ of the health activities of 170 industrial concerns and found that:

1. In 71 of the plants visited—42 per cent—the health department functioned under an official supervising production (the superintendent or works manager, or the head of production).
2. In 36 plants—21 per cent—the work was directly under

¹"Studies of the Medical and Surgical Care of Industrial Workers." United States Public Health Service, Washington, D. C.

an official dealing with compensation matters, such as the legal department, compensation or claim department, treasurer, secretary-treasurer, auditor, or clerk.

3. In 31 plants—18 per cent—an official representing the administration of the plant had supervision of the work: the president, the general manager or the director of plant administration.

4. In 28 firms—15 per cent—some official having jurisdiction over labor supervised the work: the director of welfare, the employment manager, the head of the service department, the head of the relief department, the industrial service manager, the paymaster, the employment and welfare manager, the head of the safety, compensation, and hospital department, the head of the relief surgery and employment department, or the head of industrial relations.

5. In one of the four plants remaining, the work was under the supervision of the office manager; under the safety department in two of these firms, and under the engineer in the other.

It is a significant fact that 71 of the firms studied had those in charge of health work under the supervision of men whose main job was production. Where a plant is small and a functionalized employment and service department is hardly possible because of the overhead expense, there is good reason why health activities should be controlled by the superintendent, but where large numbers are employed the health department should properly function under the manager of industrial relations or the employment and service manager. Again, to have health work under the supervision of the claim department is to destroy its possibilities as a factor in labor maintenance. It is hardly possible that employees, in such a case and under such necessarily biased conditions, will have the confidence in the management required to make the work a success.

The Industrial Clinic or Emergency Hospital

The custom in most plants which have special rooms and equipment for handling minor injuries and ailments is to call these quarters "the dispensary." While, from the standpoint of medical terminology this term is correct, it is objectionable to the worker who lives in a large city and to whom a dispensary stands for a charitable enterprise. There is the same psychological objection to the term "hospital" or to the term "clinic."

Dr. George E. Tucker, one of the pioneers in industrial medicine, suggests the name "medical unit" as best suited to describe the quarters where medical work is done in a plant. This term may be applied equally to what is now called the first-aid room or to the most extensive hospital building and equipment. So in a large plant there may be several medical units in different parts of the establishment, each having its identifying number. Each unit represents a unit of service.

The term "first-aid room" has been found unsatisfactory in cases where only a nurse is employed to treat minor injuries, but where the room has equipment beyond the ordinary first-aid cabinet. This may be illustrated by the story of a Connecticut plant employing about 3,000. A room in one of the buildings was set aside for emergency work and was equipped with a cabinet containing medical supplies and remedies for simple ailments, a bed, two tables, some chairs, basins, and other utensils. The work was in charge of a young man, a graduate nurse who was employed full time at the plant by an insurance company. This nurse was very well liked by the men in the plant and did excellent work. The nurse's quarters were known as the "first-aid room." In spite of the ability and personality of the nurse it was found that the men did not have the fullest confidence in the institution of the first-aid room. The men felt that this was not the place

for them if they thought they had some real trouble and so consulted their private physicians very often on matters which were minor and could just as well be taken care of by the company nurse. The whole trouble was lack of confidence based on the idea that "first-aid" meant only a "kit" and not professional treatment. The experiment was tried of changing the name of the room to "emergency hospital" without making any special announcement of the change. The nurse, who had been in the habit of doing his work in his shirt sleeves, was instructed to wear his white coat at all times. In a few weeks there was a noticeable change in the attitude of the workers. One cannot say that this change was owing entirely to the change in the name of the quarters for medical aid, but events pointed to the fact that the name of the place had a real psychological effect upon the workers.

Equipment of Emergency Hospital

The equipment of the modern emergency hospital in industrial plants varies from the "first-aid to the injured" cabinet to full outfits for major surgical operations. The well-equipped health department has dressing-stands of enameled steel or with plate-glass tops, and sometimes dressing-tables on wheels; stationary wash-bowls, behind which solutions and ointments are kept on shelves; and tiers of drawers nearby in which are stored rolls of bandages, gauze, and cotton. In some cases there are special swivel-seated chairs and stools for patients. Foot and arm rests are also provided for minor operations and dressings. In some industries, in which the feet of workmen become dirty, foot tubs are included in the equipment of the medical unit. These and other facilities are provided for the antiseptic treatment of all sorts of wounds and injuries. There are supply cabinets, separate, or, in a few recent establishments, built into the walls of

a room, for the storage of surgical and medical instruments, medicines, and supplies.

The small clinic may give first aid in case of injury and send the patient to a local hospital for operation or treatment if the case is at all serious. This method is followed by the Fore River Plant of the Bethlehem Shipbuilding Corporation, at Quincy, Massachusetts, although the plant has an excellent clinic and a full staff of physicians and attendants. The more difficult cases of injury are sent to the Quincy City Hospital. It seems better, perhaps, that such patients should be treated away from the busy shipyard. There are, however, operating tables, nitrous oxide apparatus, and X-ray machines in many modern industrial clinics. Sometimes there are found vibrators, baking ovens, violet-ray machines, and therapeutic lamps. The Carnegie Steel Company and other big concerns in which the hazards of employment are great have most elaborate and minutely equipped plant hospitals.

The modern industrial plant which employs hundreds or even thousands of people, and in many cases determines the general welfare of its community finds it good business to seek out and adopt the most modern methods of restoring injured employees to normal health and efficiency.

Minimum Requirements of the Department

In this connection the report of a special committee on factories made to the Chicago Tuberculosis Institute in 1913 is of practical importance. Dr. Harry E. Mock of Sears, Roebuck, and Company, was chairman and with him were associated Dr. A. M. Harvey of Crane Company, Dr. James A. Britton of the International Harvester Company, Dr. W. H. Lipman of Swift and Company, and Dr. L. Z. Little of the Western Electric Company. This committee made the following recommendation for the physician's office and equip-

ment suitable for conducting the medical examination of employees.

Location. "The ideal arrangement would be a group of offices, well-lighted, well-aired, removed from all noises and housed in a building preferably detached from the plant, especially accessible from the departments in which most accidents occur."

Whether or not this recommendation can be carried out entirely, the department should be located in as quiet a place as possible; noisy machinery overhead or in adjoining rooms is likely to impair the value of the physician's work.

Offices. The size and number of offices will depend on the number of employees to be examined daily. But the important thing to remember is that the choice of the physician to have charge of the work is the first step and he should be consulted as to his needs. The report declares the following rooms as necessary.

Waiting-Room. A waiting-room equipped with a sufficient number of chairs or suitable benches for seating employees who have to wait for treatment. If possible there should be separate waiting-rooms for men and for women.

Filing-Room. There should be a general office for a stenographer and the files of the department. It is absolutely essential that the most careful and accurate records be kept. Such records are of vital importance not only for study of plant health conditions but in connection with claims for compensation which may arise.

Examining Rooms. The examining room should be as quiet as possible, and well-lighted. It is important that this room should be completely closed off from the other rooms. The room should contain a chair for the doctor, a stool for the employee (the report suggests a revolving piano stool as ideal), a simple-padded examining table, a small stand for

writing or on which the doctor may lay his instruments. Two hooks in the wall can serve as clothes hangers.

It is also suggested that if the number of employees examined daily is large, there should be two or more rooms equipped as above. The best arrangement provides a dressing-room in connection with a small examining room so that the employee may come into the doctor's room prepared for the examination. For the examination of female employees the separate dressing-room and examining room is essential. The point is also made that in all cases when a girl is examined the nurse should be present.

As the history of each case may be taken in the examining room, the committee does not consider a history room essential. The report states, however, that a great deal of the doctor's time is saved if a separate room for this purpose is provided, in which the temperature, pulse, height, and weight of the employee can be taken, and the few points desired in regard to age, nationality, and past history obtained. This work can be done by a nurse, or by a well-trained attendant.

Laboratory. A laboratory is highly essential, for no examination is complete without certain laboratory tests. The laboratory should be equipped for careful urinalysis, with a microscope, blood-counting, and blood-pressure apparatus.

Private Offices. The physician in charge should have his own private office where employees may consult him without embarrassment. In the absence of such an office, the doctor can use one of the examining rooms.

Surgical Room. There should also be a surgical room where immediate attention can be given to accident cases and where subsequent dressings can be made. Two of these rooms are necessary in plants where many women are employed. Good light and ventilation are essential. It is desirable that the surgical room be closed off from the rest of the

office as the sight of wounds being dressed will tend to prevent employees from coming to the office.

The surgical room, as well as all others in the department, should be kept scrupulously clean.

It should be painted white and furnished as follows:

1. White enameled table where the patient can lie down if necessary.
2. White enameled dressing-table.
3. White enameled stand for instrument sterilizer.
4. Glass jars for dressings.
5. Instrument cabinet.
6. The few necessary drugs.
7. White enameled chairs or stools.
8. White enameled stands suitable for resting the patient's leg or arm for dressing wounds of these extremities.
9. Hot and cold running water (foot control).
10. As an adjunct to this equipment there should be space or preferably a separate room for hydro-thermal and baking apparatus.

Dr. Mock in his book, "Industrial Medicine" (1919) also recommends a sterilizing room where all dressings used on wounds can be thoroughly sterilized. And in plants where severe accidents are likely to occur an X-ray laboratory is essential.

Restrooms. Restrooms, one for women and one for men, are important, for when suddenly taken ill an employee often wishes to lie down until he is taken to a hospital or is able to go home. Rest will frequently enable employees to overcome a temporary condition and return to work after an hour or so.

Not the least important part of the equipment of a health

department are proper toilet facilities in the doctor's office. Shower baths should also be included in the equipment when possible.

Personnel of the Department

The industrial clinics have generally about the same kinds of heads, assistants, and attendants as the small private or public hospital. First, of course, comes the physician in charge.

Where a plant is small it is generally unnecessary to have a physician on full time and so arrangement is made for consulting physicians who devote part of the day or the week to employees, or who are called upon in case of emergency. This arrangement is sufficient when there is a well-equipped emergency aid room in charge of a capable nurse who takes care of minor injuries. But when the arrangement is to send minor injury cases to a physician outside the plant, much unnecessary lost time is the result, and there is considerable danger of infection developing. The time lost in going to and from the physician for redressings is forgotten and the doctor is apt to be careless in fixing the period of disability. A detached medical service is bad in principle and is uneconomic in practice.

Where extensive medical work is done in a plant it is wise to have the services of one or more physicians on full time. This is especially true of firms where physical examinations of employees are conducted or where the force of workers is quite large. Full time of the physician is the practice in most of the industrial plants of the country where some form of medical service is provided.

Training the Industrial Physician

It is evident that the industrial physician should receive special training for his work. In response to this need medical

schools of several great universities of the country have begun to study the problem and to establish courses of training. The Medical School of Harvard University was among the first to take this step, organizing a course in industrial hygiene. Such a course should deal with industrial, medical, and surgical problems, sanitary standards of plants, occupational diseases, fatigue, general safety work, methods of medical supervision of employees, physical examinations, dental hygiene, and nursing service. It should deal also with the question of personal relations in industry, employment methods in their relation to health, the place and value of recreation, food problems, and industrial housing.

The College of Medicine of the University of Cincinnati has lately established a course in industrial medicine and public health in co-operation with the local chapter of the National Safety Council and Employment Managers' Association. The outline of the work of this course (Figure 12) is here presented.

The compensation of industrial physicians varies greatly. Whole-time physicians receive from \$1,200 to \$8,000 a year. In one plant the part-time physician receives \$1,800 a year. This plant has less than 500 employees. A plant having between 500 and 1,000 workers pays its head physician \$3,300 for three hours each day. In another plant a part-time physician receives \$60 a month for three afternoons each week. There are no standards by which to determine how much should be paid for medical services; it is a matter determined solely by the circumstances in the particular case.

Industrial Nurses

The rest of the personnel falls into two classes—those who have the training of the schools, and those who have the training of experience only. Selby, in his "Studies of the Medical and Surgical Care of Industrial Workers," already

EXTENSION WORK		THE PERSONNEL	TRAINING INDUSTRIAL PHYSICIANS	
Public Service and Association Work	Service to Local Plants		Teaching at the College of Medicine	Co-operative Teaching in the Industries
Director active in the work of Public Health Division of Council of Social Agencies. Assists Health Officers in case of Epidemics. Gathers Medical Statistics from Industries.	Special Research. Surveys of Sanitary Conditions, Occupational Diseases, etc., at the request of the plants. Installs Medical Departments. Prepares Health Leaflets. Encourages the Installation of Employee's Service Departments.	Medical Director (in charge of course) Woman Assistant Research Worker Part-time Dentist	Gives Lectures and Laboratory Work in Industrial Medicine, Public Health, Shop Sanitation, Occupational Hazards, etc.	Places Students in Industrial Medical Depts. and conducts research work in the plants with them. Supervises Students During Industrial Internship.
Acts as Executive Secretary of Local Employment Managers Association.	Advises and Consults with Employment Managers. Makes Special Investigations and Recommendations. Organizes Employment Departments. Confers with Management as to Policies.	Employment and Industrial Relations Man	Gives instructions in Employment, Labor Economics, Industrial Relations, etc. Co-ordinates the lectures given on Industrial Relations by the National Safety Council.	Places Students in Employment Departments and teaches them how employment records are kept and filed; work with them in organizing "Mutual Aids."
Acts as Executive Secretary of Local Chapter of the National Safety Council.	Advises and Consults with Safety Engineers. Organizes Accident Prevention Work. Makes Investigations and Recommendations.	Safety Engineer	Gives instruction in Accident Prevention—chiefly co-ordinating the lectures given by the National Safety Council.	Has Students work with him in investigation and organization of Accident Prevention Work.
Through Local Chapter, renders assistance in general accident prevention campaigns.	Gives Course of 15 Lectures on "Accident Prevention" to Safety Inspectors, etc. Gives Course of 8 Lectures on "Industrial Relations" to Plant Executives. (All lectures available to Engineering Students and others interested.)	The National Safety Council (furnishing Speakers of National reputation).	Students attend the 15 lectures on "Accident Prevention" and 8 lectures on "Industrial Relations," and keep notes.	Students have the advantage of the circulating library and information bureau maintained by N. S. C. resulting from experience of its 4,000 members.

Figure 12. Outline of a Course in Industrial Medicine and Public Health

Established by the Medical College of the University of Cincinnati in co-operation with the local chapters of the National Safety Council and Employment Managers' Association.

referred to in these pages, says, "The trained female nurses are 65 per cent of the whole number and the others are—trained male nurses 4 per cent, experienced women 3 per cent and experienced men 27 per cent."

It is seen that the female trained nurses greatly outnumber the untrained or "experienced," while the ratio is reversed in the case of men. The young woman who goes into nursing knows that she will advance to full standing and earnings only by having the training to be gained in the schools. On the other hand the young man hesitates to spend three or four extra years in school or hospital classes and trusts that assisting those who are trained will advance him to substantial earnings in this new field. Men have come into such work rather by chance or by circumstances. In this connection Selby again says, "Clerks and other employees whose duties have thrown them into contact with accident cases have gradually developed, through observation, experience, and perhaps some study, into dispensary attendants."

Naturally a course of technical training is altogether desirable for the attendant, yet in many small industrial plants, which cannot afford high-salaried attendants, the person who has had practical experience in the dispensaries of other plants or in hospitals, under skilled physicians and trained nurses, may be an efficient attendant. Here as in other situations in business and industry personality counts.

As the industrial clinic becomes established more and more widely, however, we may expect that the standards of professional equipment for assistants all up and down the line will be raised, and that school courses will be more generally required for the attendant.

Dispensary attendants cleanse and dress wounds, care for mild cases of accident, and after consulting the head of the department, give medicines for headaches, constipation, and minor ailments. They assist the physician in the more diffi-

cult cases and examinations, keep records, and, when special clerks are not provided, prepare reports. In some plants they give information for health promotion or accident prevention to employees, individually or collectively.

The industrial nurse must be tactful, quick to understand the difficulties of individual cases, and sympathetic. She gets closer to the patient and many times has greater influence with him than the attending physician. The natural qualities of women, of gentleness, feeling, patience, and insight make them preferable and in greater demand in industrial clinics.

Again the attendant nurse has a rare opportunity to make new contacts between the employee and the employer. The worker forgetting that accidents and illness occur in employment as well as in idleness, may feel an accident or illness is chargeable to his employer. Through skill, kindly suggestion, and sympathy, the nurse can help to correct such an impression, and at the same time the health and strength of the worker, so vital to success in industry, will be conserved.

Course of Training for Industrial Nurses

A typical course for the training of industrial nurses has recently been established at Boston University, extending through the summer session. The following statement announcing the course has some interesting points apropos of the present discussion:

Factory Nursing. This course is offered in co-operation with the Industrial Committee of the New England section, National Civic Federation, in response to an urgent request by representatives of large business interests who feel the need of well-trained factory nurses. It is intended to prepare men and women to act as qualified assistants to industrial managers in supervising and promoting the health of employees and sanitary conditions of employment. It is especially planned to aid in the practical preparation of the factory nurse.

In large manufacturing establishments the position of factory nurse is becoming one of increasing importance. In many establishments the factory nurse not only has charge of emergency rooms, to which accident or sickness may occasionally bring an employee, but has general supervision of sanitary conditions. She co-operates with the employment department, making vocational studies and thus assisting the management in properly placing employees. She is of equal assistance to the employee, helping the individual to work into the most suitable position.

Since many manufacturers are requiring these services of the factory nurse, the rapidly increasing demand offers an attractive field for graduate nurses and other specially qualified women.

The work will consist of lectures by the instructor and by representatives of important industries, who will deal with the opportunities of this form of service. Such topics as the following will be considered: industrial organization; health supervision of employees; physical conditions of plants and their effect on the health and the efficiency of the workers; workmen's compensation; physical examination of employees; first-aid treatment of injured and sick by fellow-employees, etc.

The lectures will be illustrated with the stereopticon. There will be several visits to manufacturing establishments in the city or near vicinity, for the purpose of demonstrating and applying the subject matter of the course.

Monday, Wednesday, and Friday from 3-5 for four weeks, beginning July 2.

For this course a special fee of only \$5 is charged.

Work of the Standard Oil Company

There are many fine health departments in industrial plants, among them being that conducted by the Standard Oil Company. The medical department of this company consists of a medical consultant, a medical director, ten full-time physicians, four part-time physicians, and three hundred doctors employed on a fee basis when called upon. There are

also six women and ten male nurses and four clerks. The work in general comes under the following heads:

1. Treatment of emergency accident cases.
2. Examination of new employees.
3. Rating old employees as to their general physical condition.
4. General medical advice.
5. Sanitary supervision of the plants.
6. The management of a tuberculosis home for employees.
7. Planning new medical quarters.
8. Administration.

As to the results of this work, the company states:

It is manifestly impossible to strike an exact trial balance between the cost of the medical department and the value of results achieved, but in the brief experience of the medical service here it is possible to point to many definite instances in which the period of disability of employees has been shortened; while in many other cases permanent injuries have been obviated through prompt and thorough treatment. Absence from work because of chronic disease has been confined largely to employees taken on prior to the adoption of the present system.

The American Rolling Mill Company

Another successful medical department is that of the American Rolling Mill Company, Youngstown, Ohio. The company employs three full-time physicians, eleven nurses, and three clerks. The organization of the department includes a main hospital completely equipped, a "colored hospital," central works and shop dispensaries, and a physical examination department. Laboratory facilities are also provided.

A complete clinical record of each employee is kept, and if this shows that the health of the particular employee is not

normal he is given a thorough examination and if it appears advisable, a change of work is recommended.

The American Cast Iron Pipe Company

The medical department of the American Cast Iron Pipe Company, Birmingham, Alabama, maintains two physicians, one surgeon, and several trained nurses as well as a staff of consulting specialists. There are operating and consultation rooms. One of the most successful features of the work is that done by the company dentist. There are two dental operating rooms and most of the work is done free.

The services of the medical department are furnished to married men and their families for a fee of \$1 per month. There is a fee of 50 cents per month for single men.

The British Government's Requirements

The British government requires all blast furnaces, copper-mills, iron-mills, and foundries, and metal works employing 500 or more, to provide and maintain in good order what it calls an "ambulance room." This room must be a separate room used only for the purpose of treatment and rest. It must have a floor space of not less than 100 square feet and "smooth, hard, and impervious walls and floor, and shall be provided with ample means of natural and artificial lighting." This room must contain at least:

1. A glazed sink with hot and cold water always available.
2. A table with a smooth top.
3. Means for sterilizing instruments.
4. A supply of suitable dressings, bandages, and splints.
5. A couch.
6. A stretcher.

Where persons of both sexes are employed, arrangements must be made for their separate treatment.

CHAPTER XIV

WORK OF THE PLANT HEALTH DEPARTMENT

Physical Examinations

With the establishment of the health department in industry has come the practice of giving a careful physical examination to applicants for employment. Sometimes such an examination is given even to persons who have been employed for some time, so that the management may be assured of their satisfactory physical condition. As a requirement for new employees, the examination is becoming rather general.

The employer is responsible for taking into his business or manufacture only those persons who have the health and strength requisite for the particular work to be done. The efficiency of the worker is thus assured, and a full measure of production obtained.

On the other hand, no harm is done to those whose physical condition keeps them out of a particular employment, for they may take measures for recuperation or physical development which otherwise they might never adopt. The physical examination is recognized as necessary not only for the good of the worker himself, but, to protect one's fellow-workers from any contagious disease or unpleasant physical ailment. An indication of how important this matter is may be gained from the fact that of the two and a half million men, between the ages of 21 and 30, who were examined for the National Army in 1917, 34 per cent were found physically unfit for military service and were rejected. It was estimated that over one-third of this number were suffering from remediable defects.

Objections and Difficulties

Difficulties of real importance sometimes arise in connection with physical examinations of female employees. The best practice provides for a woman physician to do this work. If that is not feasible, a nurse or matron should be present when the examination is made and unnecessary exposure of the body should be avoided. There is little objection to the examination if its purpose is carefully explained.

The medical examination of new employees should always be made *before* the applicant is engaged for employment. A number of employers have not followed this important rule, with the result that some workers who had given up positions in other concerns to enter the plants of the employers we have mentioned, found themselves without jobs after a short time because of failure to pass the physical examination. Such a procedure is unjust, and is good ground for dissatisfaction with the system.

Much of the objection to physical examination has been owing to the fact that some employers have used the physical examination as a means of blacklisting workers who had tried to develop unionism among the workers of certain industrial communities. Another source of objection was the fear that if rejected because of physical defects in a particular concern which had an interchange of information with other concerns, a worker would have to move his family out of the district and find employment in some distant center.

Western Electric Company

The work of the Western Electric Company in this phase of employment management is an example of what the foremost concerns are now attempting. The company's "suggestions to the examining physician" indicate the purpose and scope of the physical examination so well that they are included here, in part, in the following statements:

THE EXAMINING PHYSICIAN

We require that each new employee submit to a physical examination for the purpose of securing such information with reference to the past and present health of the applicant as will enable us to evaluate correctly his ability to perform his duties without danger to his health or injury to himself. It is equally essential that the employment of the applicant does not subject his fellow-employees to undue risks.

It is necessary for us to depend on you, as our examining physician, to inform us as to the risk we would be compelled to assume if the applicants whom you examine should be employed. Your duty towards us differs from that of an examining physician for an insurance company in this respect: To them you would stand as adviser as to the expectancy of life, upon which advice would depend the payment of losses; to us you are the adviser as to the expectancy of health, upon which information we must depend as to our risk from sickness or injury to our employees.

The examination report which we use we believe covers only the information necessary to make a fair decision in each case, and it is essential that we have complete information as called for in these reports in order that we may have a well-defined picture of the physical condition of the applicant who is examined.

As a result of your physical examination, applicants should be classified in one of the following classes, and this classification entered on the report under the heading "Remarks":

First, those who should be classed "Accepted." Applicants whose physical and mental conditions are free from acute or chronic diseases and whose anatomical structures compare favorably with the normal, who are free from deformity or maiming of any kind, and whose expectancy of health is good at the time of examination.

Second, those who should be classed "Physically Unfit." Applicants who at the time of examination show some evidence of disease, either acute or chronic; some injury or deformity; some substandard condition which might become aggravated, or which might influence the health of a fellow-

workman; but which condition, in your opinion, can be corrected and the applicant restored to a normal standard of health. Applicants of this class shall not be approved for employment but may be reconsidered for employment after the defective condition has been remedied.

Third, those who should be classed "Rejected." Applicants who are afflicted with disease or injury, who are maimed or deformed, or who have defective vision to such an extent that these conditions cannot be sufficiently corrected to restore the applicants to a normal physical condition. Applicants of this class shall not be reconsidered for employment.

For the purpose of obtaining uniformity of results and to be of assistance to you in forming an idea of our requirements we are listing below general descriptions of the information required under the various headings on the examination cards. The subjective part of the examination we do not consider of as much importance to us as the objective, for, while it often furnishes favorable information as to the past health, the real purpose of the examination is to determine the condition of applicants at the time they are employed.

Although the final responsibility for accepting or rejecting applicants rests with us, with you, as examiner, rests the responsibility for the accuracy and completeness of the record of the physical examination of the applicant, and it is, therefore, upon your vigilance and judgment that we depend to deal justly and fairly with our applicants and to be successful in conducting that phase of our physical examination work with which you are associated.

Avery Company

Dr. C. G. Farnum, chief surgeon of the Avery Company, Peoria, Illinois, in a paper read before the American Public Health Association, at Rochester, New York, made some significant statements about physical examinations which are of especial interest at this point. Some of them, dealing with the number of physically perfect and handicapped men and

the special defects covered by examination at the Avery Company, follow:

Wherever routine physical examinations of large groups of men have been carried out it has been most strikingly demonstrated that here in America the number of physically perfect men is extremely small—so small that but a meager part of the work of the world could be carried on by them. The statistics on this point vary from less than 1 per cent to 12 per cent, depending on classification and the thoroughness of the examinations. On the other hand, these same routine examinations reveal the equally interesting fact that the percentage of men whose defects render them unfit for any form of employment is likewise exceedingly small. Between these two small groups that occupy the extremes in the scale, lies the incalculably huge army of workers who are doing their daily tasks under greater or less handicaps to their efficiency and progress, and whose accident hazard is increased to a corresponding degree.

These groups of major defects are as follows:

1. Diseased hearts and circulatory apparatus.
2. Diseased kidneys and diabetes.
3. Defective vision.
4. Defective hearing.
5. Venereal diseases.
6. Hernia.
7. Diseases of the lungs.
8. Atrophies, ankylosis, amputations, impaired reflexes.

We have omitted many things that might have been included and which are covered by our examinations, such as flat foot, varicose veins, constipation, overweight, underweight, decayed teeth, diseased gums, infected tonsils, nasal defects, diseased external eyes, diseases of the nose and accessory sinuses, skin lesions, and hemorrhoids, all of which defects might be factors in the production of accidents.

The conclusion of the whole matter is excellently stated by Dr. Farnum thus:

We care for our men when they are injured, advise them when they are sick, confer with them as to their health and habits, examine them periodically, and supervise them constantly; and whatever be the subject in hand, it is always made a matter of private personal conference. We deal but little with our men en masse. It is true we issue bulletins on safety, health, and general information, but at the Avery Company we look upon the individual man as the one essential, basic element in the whole scheme of civilization. We believe in men. We consider them the most valuable things in all the world, and we think that they deserve to be dealt with individually for the solution of their individual problems and needs. No employer's time is so valuable that some of it cannot be profitably spent this way, for medical and safety supervision is not a charitable institution. It is an investment, the dividends on which are efficiency and loyalty—two of the most valuable assets any employer can possess.

Other Methods

At the Bourneville Works of Cadbury Brothers, the famous English cocoa manufacturers, the hands of employees are examined periodically to prevent eczema and other skin troubles. When it is found that workers cannot, or ought not to perform a certain sort of work, they are transferred to another sort. Warmed and dry dressing-rooms are an important adjunct to the health precautions taken at this progressive plant. The company employs two physicians, one a woman, and four trained nurses.

A new development in the matter of physical examinations of employees, is the group diagnostic clinic. Plants which do not employ their own physician form themselves into a group, and designate some clinic as their examining agent. The clinic, being in the employ of the group, examines applicants for any plant within the group. The clinic in Toledo, Ohio, is the best example of this. It has offices in various parts of the city and reaches thousands of employees. In

Chicago this plan is being worked out in co-operation with Rush Medical College.

Dental Service

The amount of time lost by workers in industry through lack of care of the teeth is almost appalling. Loss of teeth by pyorrhea, neuralgia, and rheumatism are only the more glaring troubles that arise. The general health and efficiency of the worker may depend almost entirely on the condition of the teeth. Much lost time which never figures in accident or sickness reports because it amounts to only a day or two at a time, is owing to trouble with teeth. In recruiting men in the late war, the government had, first, to exclude those whose teeth were in such condition that normal health and strength could not be maintained by the mastication and assimilation of food; and second, to do extensive dental work for those accepted. Many of the men enlisting or drafted had never consulted a dentist.

An examination of the total number of employees in a certain plant employing 7,000 men, showed 38 per cent having teeth so bad as to interfere seriously with their efficiency. Often it is found that foreign-born workers do not know what a tooth-brush is, and the industrial dentist must keep one on his desk for demonstration purposes.

Operation of Dental Clinics

Factories and industrial establishments throughout the world have established dental clinics in connection with their health departments. The condition of the teeth may be included in the physical examination. The clinic is usually in charge of an accredited dentist with such assistants or dental nurses as the size of a concern may warrant. It is kept open through the working hours of the day, or, for instance, from

8:00 to 11:30 A.M., and from 12:30 to 4:00 P.M., on fixed days of the week.

A record is kept of all operations performed in the dispensary and regular reports are made to the management. Lectures on the care of the teeth and other dental subjects are given by the dentist in charge, to groups of employees.

The services are absolutely free to the employees of the company. No charge is made for material or labor. Service is first of all preventive, to safeguard the worker against more serious trouble or loss of time. After that it may extend to the treatment of more severe cases.

Employees are not compelled to accept the services of the dental dispensary, but are generally urged to do so. Some firms employing women provide tooth-brushes and dentifrices free or at cost to employees. Other concerns send out special bulletins on the care of teeth, a typical example being the following sent out by a large mining corporation.

HINTS ON CARE OF TEETH

It is fast coming to be an accepted fact that good health depends largely on good teeth and a clean mouth.

A well-known life insurance company recently issued a letter to its employees from which the following is an extract: "As the healthy and continued life of the whole body depends upon the air it breathes and the food it assimilates, and as both of these are directly affected by the conditions of the mouth, it is not an exaggeration to say that many of the ills of mankind will be banished as soon as the teeth and mouth receive the care and attention they require."

Decay of the teeth is seldom classed as a disease. It should be considered as such, as the decay from broken-down teeth is of a particularly virulent character, for it is connected with disease of the bone. This diseased bone being in the mouth is mixed with the food and swallowed every time the patient eats. If this pus matter and diseased

bone were outside of the mouth one would never willingly or knowingly eat it, yet that is what happens when people neglect their teeth.

In the work of the dental division it has been found that 80 per cent of all children have decaying teeth. If a child has decayed teeth it cannot properly chew its food. Improperly chewed food and an unclean mouth cause bad digestion, and consequently poor general health.

Parents can greatly aid the children by encouraging them to follow the instruction given in school by the dental nurse, and by seeing that they are kept supplied with clean and serviceable tooth-brushes.

National Cash Register Company

The National Cash Register Company has a well-equipped dental clinic that has proved of great service to the employees of the company, and thus to the company itself. A report of this clinic makes the statement that "keeping workers in good health by looking after their teeth is just as essential as keeping machinery in working order." The following is a summary of all operations performed in the clinic of the National Cash Register Company in the six months' period from July 1 to December 31, 1918:

Examinations of employees.....	503
Extractions	502
Amalgam fillings	31
Cement fillings	53
Gutta-percha fillings	20
Prophylactic	564
Abscess treatments	15
First-aid	386
Consultations	75
Gum treatments	83
Nerves removed	1
Miscellaneous treatments	288

Total treatments..... 2,521

Eye Treatment

The health movement in employment has included the proper examination and care of the eyes of the workers. No feature of industrial safety has shown more satisfactory results than industrial eye protection. Thousands of industrial workers whose occupations are hazardous are today enjoying the continuation of perfect sight because of having worn goggles during working hours. Wherever there is danger to the eye from flying particles of metals or chemicals, or from dust, or from intense light or heat, goggles have been found to be the greatest protection. They have often prevented painful injury and loss of sight. Some firms compel their use; others furnish them if the workers desire them. It has been estimated that 80 per cent of all eye accidents which happened in the past were preventable.

Among the firms which provide an oculist for their employees may be mentioned the Wayne Knitting Mills, Fort Wayne, Indiana; Montgomery Ward Company, Chicago; Kaynee Company, New York; Rowntree Brothers, York, Eng.

The extensive dental and optical service now being introduced in the public schools will enable young people to enter employment with better health and sight, and will lessen the task now imposed upon industry through the former disregard of these matters on the part of the public.

The Visiting Nurse—Her Qualifications and Functions

In order to lessen absence from work some employers have special nurses whose duty it is to investigate conditions and visit the homes of persons not reporting for duty. Illness is the most frequent cause of absence, and any means of hastening recovery is desirable. The visiting nurse may also visit the patient who has been treated in the factory clinic and sent home or to a hospital for recuperation. In allowing the ordinary factory nurse to act as an investigator of absences,

there is the obvious danger of jeopardizing the good-will of the employee toward the department. Armour and Company avoid this danger by having nurses of the local district association attached to their industrial staff for this particular duty. Another concern in a small community supports a district nurse who, in addition to her general service to the public, attends ill employees of the company as well.

"The appraisal of industrial nursing service, expressed in letters from companies of national and international reputation," says Miss Ella P. Crandall, Executive Secretary of the National Organization for Public Health Nursing, "is very interesting and may be summarized as follows:

"The employment of visiting nurses:

1. Avoids frequent changes.
2. Avoids serious infection.
3. Avoids long and frequent absences.
4. Avoids excessive physicians' bills.
5. Results in decreased number of deaths.
6. Results in decreased number of disabilities, both permanent and partial.
7. Results in decreased number of accidents.
8. Helps to solve the difficulty (in some instances) of obtaining sufficient operators.
9. Offers an avenue to employees for reaching the company.
10. Offers an avenue of friendly relationship and service.
11. Affords assistance in obtaining information regarding the extent and causes of accidents.
12. Has a distinct value in determining liability.
13. Increases efficiency of employees."

A recent list of industrial nursing activities shows that they are now established in 205 cities and towns in 36 states. There are 460 firms employing 567 nurses. These firms include

a very wide range of enterprises, from the building of ships to the building of typewriters, and from the manufacture of textiles to the making of matches.

Eastman Kodak Company

The work done in home-visiting by the Eastman Kodak Company and outlined below is of especial value and significance:

Personnel:

1. A graduate nurse with social service training.
2. One clerical assistant, part-time.

Scope and Character of Work: Indicated by attached daily and monthly report sheets. Miscellaneous calls are not classified. No bedside nursing is done. The visitor's work is chiefly advisory, educational and in other ways remedial.

1. Requests to call are received from:
 - (a) Employment managers of the various plants to whom foremen and superintendents report cases of illness and other social problems among workmen and their families.
 - (b) Managers of plants.
 - (c) The intramural company nurses.
 - (d) Company physicians.
 - (e) Employees direct.
 - (f) Other social agencies in the city, such as hospital dispensaries, the United Charities, etc., with whom close co-operation is practiced through the medium of the Confidential Exchange.
2. Reports on individual cases made by letter to persons referring case to visitor. Monthly reports to managers, statistical only. . . . Occasional narratives of "human interest" stories are sent to managers as supplementary to statistical reports.
3. Records of visitor consist of carbons of above letters, together with narrative records in the third person filed alphabetically by plants. A day-book is kept by visitor for personal use and records, names, and addresses of persons called on by dates.

Method of Handling Cases. The visiting nurse does not regard it as her function to handle the cases by herself except in certain instances—that is, when the problems involved are slight, temporary, or of a character for which no suitable agency exists in the city. For example, situations involving cruelty or neglect of children are referred to the Society for the Prevention of Cruelty to Children, which takes the lead and with which the visitor co-operates on request. In sickness (not accident cases) dispensaries or private physicians are advised. Sickness or accident resulting in unemployment and consequent insufficient means of support are referred to the United Charities, or if eligible, to the Welfare Department of the Kodak Company for allowance or loan. Credit is sometimes arranged for with tradesmen, physicians, or hospitals.

Training of Nurses

The visiting nurse should have not only the regular nurse's training, but should be familiar also with the state laws relating to employment, the regulations of local boards of health, and the special work now being done in industry for the general welfare of employees. The visiting nurse, if she is to fulfil her mission, must have tact and good judgment. She must have the ability to gauge and understand the cause of absence of the worker she is visiting, and at the same time know what he needs in the way of treatment. Through her the employer comes in closest contact with the home.

Restrooms for Women

In connection with the health department, progressive firms are now providing restrooms for women and girls. The noise of the machinery and the stir and bustle of the modern industrial plant wear upon the nervous strength of women more than upon that of men. Continual standing at bench or table, moreover, is especially wearing for the female constitution. The great numbers of women employed in this and foreign countries in war times have accentuated these difficulties and caused employers everywhere to consider means

of remedying them. The attempt in some establishments, to have regular rest periods both forenoon and afternoon has not solved the problem of rest for those who suffer from temporary fatigue or sudden illness while in the factory. A room or several rooms set apart from departments of work and from the quarters usually reserved for men do provide the desired solution.

The Packard Motor Car Company, because of the scarcity of male labor during the war, has largely increased the number of women employees in its factory, and has taken very progressive steps in the training and care of women. W. J. Hammond, superintendent of the vocational school established by the company, has the following to say about restrooms in his outline of work:

The subject of the restrooms is of prime importance. The restroom is established for two purposes: as a place for a woman to change her clothes; and to provide a space for the woman who is suddenly overcome with illness, to rest in retirement. They are not intended as a general loafing space nor are women to be permitted to go out at any periodic time to the restroom for the purpose of loafing. If a woman is out of work she is to remain at her machine or in the department, being, of course, allowed to sit down if her work requires her to stand; but she is not to be rung out on idle time and sent to the restroom. It should be thoroughly understood that the restroom is provided for the ill only and if a woman does not recover within a reasonable length of time, the hospital is to be notified and the woman removed to her home. Lunching is not to be permitted in the restroom.

The last remark of the quotation above, that lunching is not to be allowed in the restroom, is significant of the purpose and atmosphere of the room. There must be no disturbing element in it, nothing to distract or arouse the person who is trying to secure relaxation, and nothing to make conversa-

tion necessary. A nurse may be in attendance, but mainly to see that complete rest is secured. Couches or cot beds and easy chairs should be provided, with no superfluous article of any kind. The walls of the room should be of a neutral, restful tint. Ample light and air should be provided, with window shades to soften and lessen the light in case of need. It is scarcely necessary to add that the room must be so situated as to provide absolute quiet, or have sound-proof walls and doors if near the workrooms of the factory.

The telephone companies throughout the country have attractively furnished restrooms which the employees may make use of during regular rest periods in the morning and afternoon. At the New York Edison Company the operators in the Contract and Inspection Department have 15 minutes between 10 and 11 A.M. and 3 and 4 P.M. for quiet recreation in the restroom.

The Curtis Publishing Company has several beautiful restrooms for employees. This is also the case with the National Cash Register Company.

Health Campaigns

It is incumbent on all industrial establishments of magnitude to see to it that all employees understand as much as possible of local health regulations, state factory legislation, and the general laws of hygiene. Employees must be made to know the value of personal cleanliness and the danger of the spread of disease when many people are crowded together through the working day. They must be conscious, while at work, of the special dangers incident to their employment.

For these purposes definite campaigns need to be carried on in industrial plants or businesses which employ many persons. In these campaigns, lectures may be given to company employees by plant physicians, nurses, or by other persons secured for the purpose. Courses of reading may be sug-

gested or provided. Health bulletins and leaflets, which are of great value in giving important scientific facts in simple form, may be printed and circulated among employees.

Training in First Aid

"First aid," says Dr. Selby, "in the sense that temporary treatment is given by more or less trained fellow-workmen, is a thing of the past, unless circumstances are such that skilled attention is not readily available." The usual argument against first aid is that many workmen think that for the treatment of small injuries nothing more is necessary. Thus they incur the danger of infection by not having full treatment in a dispensary. Yet first aid is essential even in large establishments, when some time must elapse before persons who receive accidental injuries or have sudden attacks of illness can be taken to the plant dispensary or local hospital. For instance, the Bethlehem Steel Company trains some of its workmen to apply protective dressings and transport injured men to dressing stations. The Westinghouse Electric and Manufacturing Company trains men to administer artificial respiration by the prone-pressure method. The nurses of Sears, Roebuck and Company, answer emergency calls and carry first-aid kits with them. Health lectures usually include instructions for action in first aid.

Physical Training

In establishments where employees do not get enough exercise, or the right kind of exercise, physical training is often provided.

The White Company, Cleveland, requires all those employed in responsible positions to take one hour of physical exercise daily in the company gymnasium on company time. Physical training is compulsory in some English factories where women are employed.

Trained instructors are usually secured. Where it is found too expensive to employ a person on full time to direct physical training in a plant, it would be a simple matter to make a co-operative arrangement with other concerns in the community for the services of an instructor. The work may be done in connection with the health department or with the general service or clubhouse work.

Each employee should be examined by the plant physician, or by a competent medical advisor before entering on a course of training, so that his special physical needs may be met.

Shower Baths

Physical training necessitates the shower bath, which may be located either in the health clinic or in a separate clubhouse. Employees are taught its use and value. A large number of concerns supply these baths to employees, particularly where the work is hot and dusty.

Co-operation with Community Organizations

The employer must supplement the health activities of his community. He must also work in close co-operation with all local health organizations. He may secure their assistance in a factory health campaign by obtaining from them information and aid in establishing and outfitting his dispensary.

CHAPTER XV

THE WORKER AT PLAY—THE NEED FOR RECREATION

Efficiency Requires a Change of Occupation

Recreation is something more than play. It is an effective change of occupation. Modern industry requires for full productive efficiency some regular provision for workers to give their bodies and minds a chance to re-create both spirit and energy. Good management has long recognized this need; but the studies in recent years of engineers, industrial physicians, and production specialists have re-enforced from the scientific side the insights of observant managers.

Play, then, and the larger function of recreation, may be said to have a real economic basis. The lack of it in any large organization of people reflects automatically in relationships and in output. Science has pointed out that the muscular system of the human body is the mainspring of health, contentment, happiness, and outlook. Behavior itself is largely a product in the average human being of the general physical functioning.

Need for Recreation

Modern living conditions and the usual work operations, as contrasted with farm life and work in the open, require correctives to make up for occupations which call but few muscles into play, give heart and lungs but meager exercise, involve much sedentary employment, and offer hardly any opportunity for all-round physical activity. Recreation supplies not only the necessary physical correctives—it does more.

It gives the social side of every person a chance for action. An adult requires that quite as much as does the child.

Moreover, when the social instinct is given organized expression it has values other than physical. Teamwork is wholesome character building, and observing the "rules of the game" is an object lesson in honesty. Taking an active part in an interesting project does away with inertia and self-deceit. The best education in life always comes from doing things, not from reading about them; and the best character training comes from co-operating with others in securing desirable results. So from the viewpoint of health, of good citizenship, and of industrial efficiency, organized recreation has a distinct place in sound management plans. 7

Recreation and Working Power

Take the testimony as regards the relation of recreation to working power as given by one of the leading medical experts of the country, Dr. Frederic S. Lee of Columbia University:

There is one feature of labor which I believe to be one of the most potent and most universal foes to efficiency. Natural working power varies infinitely in individuals, and yet no one will, I think, dispute the statement that few persons work up to their individual capacities. Professor William James, clear-sighted observer and keen thinker, once said: "As a rule, men habitually use only a small part of the powers which they actually possess and which they might use under appropriate conditions." This general human tendency is found also among industrial workers. It is even traditional with many and a thing to be encouraged, especially with those who have worked for years and have become accustomed to the traditional ways of labor. It is sometimes called, in this country, "soldiering," and in Great Britain, "ca'canny." It may be a conscious, wilful procedure, or it may be partly or even wholly unconscious. Many honest workers will tell you that it is deliberate. It is sometimes ascribed to labor unions as a deliberate policy,

but it is found among non-union workers as well. The American investigators have found that it occurs very commonly in the form of what they have called "stereotyping of output," that is, a form of output in which the same individual or a group of individuals will turn out, day after day, and week after week, practically the same quantity of finished product. In one munition factory engaged in the manufacture of fuses, a large proportion of the force was thus working. In forming at a capstan lathe the large end of the fuse, one man finished exactly 1,000 pieces on each of 44 nights out of 45 that were observed; in gauging the fuses, 5 girls out of 6 that were studied for one week examined 1,315 fuses each day; in 99 cases of drilling certain holes, out of 163 observations extending over 17 days, 1,300 fuses were drilled by each battery of two operatives in each spell, and 2,600 in each day; and in another drilling operation the output of each of 16 different workers, night after night, for one week was 3,600, no more and no less. If work were stopped for a brief period for reasons beyond the power of the work to control, such as the temporary crippling of a machine, the stoppage was likely to be followed by a spurt, and, without overworking his powers, the worker finished the day with the usual production to his credit.

Some Primary Considerations

There are a few practical considerations which must be dealt with before taking up a description of various types of workers' recreation activities.

In the first place, there arises the question: Does industry have to concern itself with a matter such as this? Does not activity of this kind spell paternalism, something which all sensible managers certainly wish to avoid?

To begin with the first question: Industry today is actually concerning itself with the recreation problems of the worker, as this chapter will show. Casting aside all theoretical objections, plant after plant has undertaken a program of organized and well-supervised recreation with results that set all doubts at rest.

Organized Play Is Sound Business

Under ideal conditions of employment it is possible for a working force to finish the day's work and then proceed to some wholesome recreation center where proper opportunity is provided for play and recuperation. When such conditions become common, it may be that industrial plants will find less to do in this direction. But not even then will the problem have been solved. Experience has shown that a short period of rest, change of occupation, and diversion interspersed in the working day go a long way. The tension is eased up, a freshening of energy and of spirit manifests itself, and the common form of recreation within the plant is a binding influence unsurpassed by any outside activity supplied by the community at large.

From a practical point of view, organized play in connection with the work program schedule is a piece of sound business economy. Viewing it wholly as such, there can be no pretense of paternalism. No one thinks of good ventilation, proper lighting, safeguarded machinery, clean toilets, and adequate washing facilities as examples of benevolence and fatherly interest. These items measure the intelligence of management. In the same way, recreation as part of a plant's service schedule may well be regarded as an instance of vision applied to the problem of production under right conditions. There are difficulties, of course, in such application. First of all, the nature of the operations may be such as to make impossible any interruption of an external nature. Few plants have the physical facilities for work of this kind. As a rule only thoroughly up-to-date buildings and grounds will permit of any such activities. But that does not dispose of the matter, because some of the most effective work in this direction has been undertaken in what seemed to be most unpromising locations.

Self-Directed Recreation Best

The lesson comes home continually that self-initiated and self-conducted activities on the part of people usually fare best and last the longest. This is true of recreation work. Play is a natural instinct. Generally it wants only incentive and opportunity. There are some, to be sure, whose desire for play and recreation seems to have been forgotten, as if they had never had a childhood. Here is an opportunity for real service. That is why a trained leader of recreation is always an asset. But this leader's part need never be an aggressive or conspicuous one; it is enough that he or she is on the job.

Again and again the point must be emphasized that in all plant activities which are outside the direct field of production, self-direction on the part of employees should be encouraged, and made a regular feature of the program. That, of course, is easily accepted with respect to such familiar recreation enterprises as baseball teams, or field sports. Athletic events are quite commonly the result of initiative on the part of some energetic individuals among the workers. But the point is that there is a vast unused fund of energy and enterprise for recreation purposes which many an organization fails to utilize, because a habit has been formed of expecting initiative from the top instead of from the rank and file.

Now there is only one way to overcome a stagnant situation such as this, and that way is to make prompt provision for employee co-operation in recreation work. Such co-operation means turning invaluable assets into the social life and activities of the plant.)

Freedom in Recreation

In this chapter stress has been laid on the importance of recreation that is organized and supervised. There can be no question that these elements must be regarded if recreation

work is to accomplish the good that it can do. But it will be profitable to consider just what the nature of the organization and supervision should be. First of all let us consider what it should not be.

(Obviously, freedom is the big element in play—the sense of action without constraint of any kind. Good play teaches by its very nature the wisdom of not interfering with others. That is what rules imply. The very essence of genuine relaxation is maximum opportunity for the senses and the instinct to follow their own whims. Officiousness on the part of plant executives, however legitimate their zeal, is wholly out of place. The fewer external restraints the better. (Plant discipline in the matter of recreation must work by methods of indirection. It cannot be imposed, as too frequently is the case with shop discipline.)

(The play supervision should never be aggressive, assertive, or teacher-like.) The psychologist has defined play as that group of activities which are not consciously performed for the sake of any result beyond themselves. Enjoyment flows from such activities because they are executed without reference to any ulterior ends or purposes. The moral is clear that the injection of any such ulterior purpose in any recreation project will put an end to it.

(The stimulus that the group supplies is better than that of the supervisor, although there may be ample occasion for that of the latter. Many an adult has too often forgotten, if indeed he has ever really known, how to join in games and sports. Love of outdoor pastimes is a distinguishing trait of the English-speaking race. While alien groups among the factory force have delightful contributions of their own to make, particularly in the way of folk dances, songs, and pageants, they have much to learn about games which are the common inheritance of the American boy raised in a country town.

The Example of the Cities

The present generation has seen a change in public opinion relative to the need of play spaces and organized recreation to offset the physical deprivations connected with city life. Moreover, the shortening of the work day has opened up the subject of providing, for the leisure time of workers, up-building influences to nullify destructive influences lying in wait for idle hands and brain.

So within twenty-five years cities have taken pride in tearing down congested tenements and utilizing their sites for parks, playgrounds, recreation buildings, and gymnasiums. Public schools have shown this awakening to the need of looking after the physical fitness of our citizenship most strikingly; while here and there an employer of exceptional insight has made his own provision for the play activities of the worker.

The results have been remarkable. Public recreation has reduced juvenile crime, so called, which too often was merely a blowing off of steam in the wrong place and at somebody else's expense; there has been a falling off of tragic street accidents to children; and there has been an improvement in feeling among different racial groups in cosmopolitan communities, and a quickening of mental power. These same benefits have shown among adults as well.

Recognition of Benefits of Recreation

With the growth of public interest in recreation, and with universal approval, there has grown a recognition of the positive civic and economic value of recreation programs under the direction of competent persons. For the first time in history, training classes have been established for equipping such directors with the knowledge of the best methods and experiences in this type of work. Its literature is so voluminous as to amaze anyone who has not given the matter special attention. There is now a large class of professional and

highly skilled specialists in the field of recreation, as there are in many other departments of organized human activity. Standards for recreation work exist today as they did not a generation ago. Perhaps they were not needed then; today they are.

It is the business of a recreation director in a plant to make use of the lessons, learned in the course of many years' trial by a large number of people active in modern supervised play. (A plant which prides itself on modern equipment and production methods should be able to pride itself as well on its contribution to the leisure activities of its working body. Where this has been done on a satisfactory scale, we find not only the right sort of leader in charge of the work, but in addition the plant nurse and the plant physician holding an important place as advisors and collaborators in the carrying out of the program.)

Employee Management of Recreation

Whether the recreation enterprise be of the indoor or of the outdoor type, or a combination of both, as it really should be, the plans and the execution of their details should allow of active participation in management by employees selected for the purpose. (A recreation program should never be handed down from above. It should always be of tentative character depending for its completion upon the wishes and suggestions of those who are to benefit by it. Serious mistakes have been made where this principle has been overlooked.) Responsibility for untoward results should be laid to those who overlook abundant experience and guidance that might have helped.

(Where an office is set apart for the work of the recreation program, care should be taken that a collection is started of all worth-while things that have been printed on the subject. Books and magazine articles about games, pictures, and models

of apparatus used for sports should be prominently displayed where all may see them. The plant library should make it a point to circulate books on games and sports, and keep for ready reference a number of good outdoor-life magazines and publications. The more intelligently this kind of work is done the more effective will be the results among the people throughout the organization.)

The Democracy of Play

What has thus far been said should not convey the impression that recreation work is something to be confined exclusively to the rank and file. (Play is a great leveler of the right sort. Recreation is the maker of friendships and good-will among all those who share it in worthy fashion. At this period there is no great nor small. President and sweeper are common fellows when the play is on. The observers count for less than the participants. Exhibitions and performances in which the few take part have their place, of course, but that program is best in which all can have a place and a part. There should be no room for favorites; here all are needed and wanted—particularly those who are shy or reluctant, and feel out of place. The utmost consideration should be exercised toward such as these. It is far better to get a handful of people who feel themselves out of it, to join in the spirit of play program, than it is to develop and encourage a champion.)

The prize performer has his place; the natural leader is always an asset if his preeminence does not smother and discourage the more modest efforts of others; but the “greatest good of the greatest number” is the only safe rule and policy in every program of plant recreation.)

A good measure of the success of any such program is not how many stars have been made to shine, how many prizes captured—though nobody will belittle the satisfaction in such

achievement—but how large a percentage of the total organization has been stimulated to join in. The degree of absenteeism here is the final test; and the reduction of the number of those who have no share in the activities is the ultimate goal and measure of accomplishment.

From a superficial viewpoint the results may not be so dramatic; from the viewpoint of the organization as a whole, no other policy will carry forward the true aims of recreation work. One hundred per cent is a good slogan for this work. No one, unless so advised by medical authority, should be left out. (Groups may well be subdivided for one activity or another, but 100 per cent participation is the aim of all plant programs for recreation.)

The Alien in Recreation

Reference has been already made to the contributions that the alien can make to a program of play and common enjoyments. It is often noticeable that games, like languages, are something that need to be acquired, and the methods of acquiring them have to be planned with intelligence. The teacher of English does not start by ridiculing the mother tongue of the alien who is to be taught. In the recreation room and on the playground the same tact needs to be employed. Plays and exercises traditional with the alien have often been subjected to disheartening ridicule, with the result of driving him away from play activities.

He gets the "burnt-finger" attitude. Such disaffection is a loss to the organization and a handicap to right relations. The alien is sensitive about his customs and native mode of self-expression, as we should be in the same situation. Frequently we are not as sensitive as we should be to his sensitiveness. Wise recreation leadership will see to it that not only does each member of the organization find a place in the activities going forward, but can do so without loss of self-

respect or danger of humiliation. Perhaps cosmopolitan recreation of this kind is as good a start for the right sort of Americanization for both native and alien as can be found.

The Advantages of Athletics

Play, or recreation, has a great many ramifications; and has within its limits two such apparently widely removed things as football, and singing. When we speak of recreation then, we are shooting at a very broad target. From this point on, therefore, we shall consider various forms of recreation, examining the advantages that result to workers from their practice.

The value of athletics is commonly known. We know that athletics teach self-discipline, and promote fair play and good sportsmanship; that they develop a healthy mind in a healthy body; and that they build up a spirit of co-operation and teamwork.

It should not be hard to see why athletics will build up a spirit of co-operation and teamwork. Organized athletic activity, whether it is baseball, basket-ball, or some other game, appeals to what Joseph Lee calls the "belonging instinct," often called the "gang instinct." This instinct—call it what you please—properly cultivated and guided into the right channels, is a force for good; if it is neglected, it may be destructive.)

In any game requiring teamwork the individual merges his individuality into that of the group, at the same time preserving his own responsibility for the definite performance of a special function in that group. That is precisely the idea which needs to be cultivated in industry. Training in teamwork is training in industrial success. A team is governed from within; it is cemented together by the team sense of its constituent members. Similarly, an industrial corporation is a unit only when its members are held together, not by force

or necessity, but by a common spirit of loyalty, a common object, a "morale," such as exists in the army.

Motion Pictures

A great many firms use the motion picture as a method of entertainment and education. The motion picture is extremely useful in both these ways. Some firms use it to make more general among employees and the public, a knowledge of the company's products and the processes in its manufacture. Other firms hire films to show their employees on certain evenings of the week. It is very likely that this form of recreation and instruction will become more general in future.

Restrooms—Example of Eastern Manufacturing Company

The restroom is another phase—and a very good one—of recreation. An excellent example of restrooms as a provision for recreation for employees is that furnished by the Eastern Manufacturing Company of Brewer, Maine.

That company has provided two restrooms—one for men, and the other for women. The restroom of the men has substantial furniture and gives opportunity for lounging and smoking. The women's restroom is furnished with wicker chairs upholstered with bright patterns to add to the cheerful appearance of the room.

Clubhouses—Work in Mining Camps and Steel Plants

Clubhouses make possible another form of employee recreation. In the mining camps and steel plants, where the problem of recreation is especially difficult, a good many of the companies have provided commodious and well-equipped clubhouses. The features of these houses are dormitories, reading-room and library, gymnasium and swimming pool, baths (tub and shower), auditorium and dance hall, billiard

and poolrooms, bowling alleys, and basket-ball halls. The subsidiary companies pay all taxes and insurance, and furnish heat. All other expenses are borne by the club members, but the initiation fee and monthly dues are very small—sometimes, indeed, they are fixed in proportion to wages.

Recreational Possibilities of the Clubhouse

The clubhouse is one of the best possible sources of recreation. It lends itself to entertainment in a remarkable number of forms. In a modern clubhouse it is possible to dine; to attend a musical entertainment, a smoker, or a dance; to watch or to play a game of basket-ball or indoor baseball; to swim, to run, to bowl, or play pool or billiards; or to gather round a piano and sing.

In addition to all these things, a clubhouse will often have adjoining it a large athletic field with tennis courts, baseball diamonds, football grounds, and a cinder track.

The Company Park

One company, the Eastman Kodak Company of Rochester, New York, has laid out a park of thirteen acres, intersected by pleasant walks, with carefully tended lawns, flower beds, and clumps of shrubbery—thus providing an ideal place for the employee to rest and relax during the noon period, and after business hours.

The Country Club

Related to the clubhouse, yet not wholly like it either in conception or operation, is the country club. The Curtis Publishing Company of Philadelphia has a country club conducted and maintained by the employees. Any employee may join, subject to the approval of the membership committee. The dues are nominal; but owing to the fact that the majority

of the employees are members (there are a great number of them), the aggregate amount collected is sufficient to pay expenses.

The club conducts its activities through committees, such as the sports committee, the home and grounds committee, and the educational committee. One of the features of the club is, that during the winter the educational committee holds classes in cultural subjects.

Music as Recreation

In its universal appeal music is a unique form of recreation. More persons are capable of participating in a musical entertainment than in any other form of group activity, and music offers a means for self-expression that is unequalled. As a factor in the "morale" of a group, the importance of music has been recognized since ancient times. One has but to notice the effect of a brass band upon a tired and foot-sore regiment to appreciate the wonderful value of music. Particularly where a group presents diversified racial elements, is music found to be a common language and a means of bringing these elements together on a basis of sympathetic understanding of one another. Music is the great social cement. Music may take various forms in an industrial concern. Many concerns have choruses, orchestras, and brass bands, as well as small group singers or instrumentalists.

CHAPTER XVI

THE WORKER AT PLAY—METHODS OF RECREATION

Scope of the Chapter

In this chapter we shall set forth the various methods by which numerous industrial concerns are enabling their employees to obtain real rest and recreation, and a complete change of environment from that of their ordinary occupation.

The Wagner Electric Manufacturing Company

The Wagner Electric Manufacturing Company of St. Louis, for example, has an athletic field and a basket-ball hall for its workers. Employees of this company have nine baseball teams, eight of which are interdepartmental, the other representing the company in another league. Members of the winning team in each league are entitled to a bronze, silver, or gold watch-fob, and their work is appreciated by fellow-workers. In winter the athletic field is lighted at night so that games may be played. Soccer and baseball are the most popular games at this plant.

The company shares equally with employees the cost of uniforms and the other expenses of the athletic work. It does this because it believes that only the man who is willing to pay some money is willing to spend the necessary time in making athletics a success.

The larger teams of the company are entered in the Municipal Association of the city. This association, not the company, controls the teams of the city. Its executive board is thoroughly representative, consisting of a manufacturer, a

priest, a minister, a delegate from the Young Men's Hebrew Association, another from the Young Men's Christian Association, a sporting editor, and an athletic director. The discipline of the association is strict, but the decisions of the board have never been questioned.

Six baseball teams are organized to train players for the star team of the association. During the week three games are held in the evening, and a regular match game on Saturday afternoon. Basket-ball is organized in the same way.

Any employee of the company may become a member of the athletic association by paying 25 cents a month. The employees have a clubhouse which is equipped with bowling alleys, pool and billiard tables, a basket-ball floor, lockers and baths, reading-rooms and cardrooms. The house is open from 6:30 in the morning until after midnight.

Boxing matches take place every Thursday evening throughout the winter, the champions taking part in the spring tournament.

A field day is held once a year at which prizes are given for the 50-yard dash, the 100-yard dash, and the tug-of-war. Women as well as men may enter these contests. This field day is an event greatly looked forward to.

Interdepartment Games

At the Minnequa Steel Works of the Colorado Fuel and Iron Company, there is a league of several teams, representing the various departments, which play regularly; and an annual field day on which a championship baseball game between teams of different counties is played. The grounds and grandstand near the plant are provided by the company. This firm has also established playgrounds for children under supervision of an instructor whose salary it pays.

At Sopris, Colorado, a coal-mining camp, the recreational work is under the supervision of the Y. M. C. A., which has

a large assembly hall and rooms for bowling, billiards, reading, and other activities.

The United States Steel Corporation

The United States Steel Corporation has established more than 125 children's playgrounds. Most of these are located on the unoccupied land near the plant, or mine, and are equipped and maintained at the expense of the company. The company's playgrounds are not restricted to the use of the children of the employees, but are open to all children of the community. At some of the plants the playgrounds are located within the enclosure of the plants or works. Competent instructors employed by the companies are ordinarily in charge of the grounds, the equipment of which is the usual paraphernalia found in city playgrounds, although very often additional devices have been installed, such as swimming pools. The children of the miners and workmen generally avail themselves of the advantages of these playgrounds.

Many of the subsidiary companies encourage baseball among their employees. Grounds and stands have been provided for the use of teams composed of employees. In some of the companies, teams are organized at the various plants or mines, according to the national baseball rules, and these teams play regular schedules. The president of one of the subsidiary companies donated a silver cup which is played for from year to year by the teams from the various mines of the company. The teams of subsidiary companies also play each other, as well as organizations of outside concerns. These subsidiary companies have provided 100 baseball grounds for the use of their employees.

The companies do everything in their power to foster this sport. Committees composed of employees are appointed by the management to supervise the games and arrange the schedule, although it would be much better if these committees

were selected by the employees themselves. Besides baseball, provision is made for other outdoor games, such as tennis or handball.

The Bush Terminal

The Bush Terminal, Brooklyn, New York, employs about 30,000 workers, and furnishes them many opportunities for recreation. There are restrooms for men and women—that for women containing a piano, with a large space for dancing. There are facilities for bowling, billiards, basket-ball, and various gymnasium sports in the winter, and baseball, tennis, and water sports in the summer. The women eagerly take advantage of the opportunities for tennis and basket-ball.

The Pennsylvania Railroad System

The Pennsylvania Railroad, in order to make sure that its employees will have sound minds and healthy bodies (which they must have, say the road's officials, to insure safe and efficient operation), in 1915, maintained on the roads east of Pittsburgh alone, 32 baseball fields, 33 tennis grounds, 7 running tracks, and 1 golf course for their employees.

A field day is held once a year. On this occasion a cup is given to the winning athletic team, and to each member of the winning team a small gold medal is presented. Nor are the efforts of the company confined to outdoor sport. During the winter, recreational facilities include indoor base-ball, indoor track events, basket-ball, bowling, pool, and shuffle-board tournaments.

The National Cash Register Company

The National Cash Register Company, Dayton, Ohio, provides facilities for recreation which include tennis courts, a golf course, dance hall, basket-ball court, quoits, pool-tables,

children's play apparatus, baseball diamonds, and other arrangements.

Sears, Roebuck and Company

At Sears, Roebuck and Company, a physical director and coach is in charge of the athletic work. Ball grounds and tennis courts are provided as well as clubhouses for both men and women. There are nineteen baseball teams, all playing regular schedules. In the summer several tennis tournaments are held. The season ends in a large field meet.

The Goodyear Tire and Rubber Company, Akron, Ohio, early in 1917, erected a hall to accommodate the social and athletic interests of employees. This hall is of brick and steel; it is about 400 feet long by 170 feet wide; the front is four stories high; the rear is two stories high. The building contains a gymnasium, an auditorium, bowling alleys, handball courts, showers, reading and smoking rooms, and other conveniences.

Athletics are under the supervision of a director who co-operates with all regularly elected team officers. In 1916, for the entertainment of the entire plant, what was perhaps the largest athletic meet ever staged by an industrial organization in this country took place. Forty-three separate athletic events were scheduled. These included boxing, wrestling, a baseball game between the factory "All-Stars" and the Boston branch, races of all kinds, novelty events, tugs-of-war, etc. All expenses were borne by the Goodyear Company, and, in addition, about \$1,700 worth of prizes were distributed.

The Curtis Publishing Company's Country Club

In the preceding chapter (see page 220) we mentioned the country club of the Curtis Publishing Company of Philadelphia. The features of this club merit further enlargement here.

Connected with this country club are an outdoor swimming pool, two baseball diamonds, where teams representing the divisions of the company play every week-end for the championship, a football field, a quarter-mile cinder track with a 200-yard straight-away, and six tennis courts. The club exercises an excellent influence among its personnel, and aids the company in maintaining the right plant spirit.

The boys of the company, about one hundred of them, are organized into the Curtis Junior Club which is a self-governing organization. Several times each week athletic drills are conducted in the boys' clubroom under the direction of an athletic coach provided by the company. Basket-ball and baseball leagues, comprising teams representing the various departments and divisions of the company, furnish opportunities for spirited contests. The basket-ball games are played in the athletic cage on the roof of the building, or in a nearby gymnasium.

The Brass Band

For several reasons a brass band is one of the best forms of musical organization. A band furnishes for both players and listeners a particularly agreeable form of recreation.

The tone of "brass" carries better in the open air than that of other instruments, and one of the excellent features of a brass band of employees is the open-air performances they can give.

The impetus toward establishing a band comes best from the employees themselves rather than from the employer. If the employer wishes to initiate such an interest, it would be well for him to consult some of his employees and consider the matter with those of them who are musical or who can put the matter properly before the other employees. The latter then can appoint a committee to discuss further details and effect an organization.

Generally one may find employees who can play an instrument; but if not, it is not a difficult matter to teach them how to play if a competent instructor is employed.

Where employers feel that there is a real desire on the part of their employees to organize a band, they often will give them the use of a place for practice, and in addition will contribute to the expense of instruments and uniforms.

Operating Expenses

Generally speaking, however, the best results come when the operating expenses of the band are met by the subscriptions of members. That leads to a desirable feeling of personal ownership and responsibility. It is not a bad plan, of course, to have a list of honorary members who also subscribe and in return receive certain privileges, such as reserved seats at concerts and so on.

The greatest expense is that for instruments. Arrangements can generally be made with dealers whereby the instruments may be paid for on the instalment plan if necessary. Some firms are willing to advance the entire sum required for the purchase of instruments on this basis. As for uniforms, many concerns assume the entire cost; in others the employees themselves give special entertainments or dances to raise the necessary money. It is well to bear in mind that the success of the band will largely depend upon the fact that the instruments are the collective and not the individual property of the members.

If possible the band should have a reserve fund, a percentage of the dues being used to build up this fund. Such a fund could be used for traveling expenses or in emergency. All the band's property, such as instruments, music, music-racks, etc., should be vested in the hands of trustees (six has been found to be a good number), three of whom should be chosen by the players and three by the honorary members.

The affairs of the band, arrangements for practice, concerts, and other business should be managed by a committee elected annually at a general election of all players and subscribers.

Organization and Practice

As to practice, a steady half-hour devoted to this daily at noon hour or after working hours is of more value than longer periods at less frequent intervals. Those who need special practice should be rehearsed separately or be allowed to take their instruments home for the purpose.

Among the firms that have been successful with bands may be mentioned the Waltham Watch Company, the Northwestern Steel Company, Portland, Oregon, which last year gave lunch-hour concerts twice weekly, on Monday noons for the day shift, and on Friday evenings for the first night shift; the Minnequa Steel Works, the Bethlehem Steel Corporation subsidiaries, the Commonwealth Steel Company, United Shoe Machinery Company, and a host of others. The Lake Torpedo Boat Company Marine Band, as organized, consists of six trombones, four cornets, four clarinets, one piccolo, three brass horns, two baritone players, three alto horns, four drums. While this is not an ideal arrangement, it is suggestive for others.

The Ford Motor Company in 1910 organized a band of 55 pieces. All the members of the band, including the director, are employees of the company. It is interesting to note the large number of occupations represented in this organization, as by far the largest number of the members are employed in the shops as machine operators, bench men, factory clerks, tool-makers, pattern-makers, and foremen.

Each year the company arranges a series of concerts in an auditorium which it provides, so that the entire Ford organization may have the pleasure of hearing high-class and light music at no cost to themselves, all the expense of the

band being borne by the company. Fifteen nationalities are represented in the band.

The band of the Eastern Manufacturing Company is made up of 26 pieces. The instruments are either the property of the men or are bought by the association and loaned to new members. The town of Easton last year contributed \$150 to the band, as a mark of the appreciation of the community. A small orchestra of 10 pieces also gives concerts and plays for dances.

At the New Jersey Zinc Company, there are three bands, a town band made up of workers at the plant, a Slavic band, and a Hungarian band. The town of Palmertown, Pennsylvania, is so much interested in employees' bands that it has contributed funds for the erection of a new bandstand where public concerts are given once a week.

The Ellsworth Collieries Company at Ellsworth, Pennsylvania, has organized two boys' bands and two bands for adults. On special occasions the bands of the boys and adults are combined. In addition to these bands the company has a Russian Glee Club of 16 members who have done splendid work on many occasions. There is also a Croatian orchestra.

Other Musical Activities—Their Influence upon Morale

Singing is another phase of musical work of importance. The Pierce-Arrow Glee Club has been very successful. The men of the company have organized a drum corps of 30 pieces, and song festivals of employees are held from time to time. Group singing at the Armour plant, East St. Louis, is another example.

In the cigar factories in Havana, not only do the workers sing at their work, but professional artists play and read for their entertainment. As a result of this there have been marked improvements in production. Some concerns provide a talking machine with good dance records, operatic music,

and instrumental solos. These concerns are small ones. The time will soon come when this idea will be carried out by large concerns where the conditions are such that the noise of machinery will not interfere with incidental music if it is supplied.

Some Company Organizations

The musical organization among employees is an important part of the work of the United States Steel Corporation. Brass bands and male choruses have been developed at the various plants of the company with considerable success. These musical organizations not only provide local entertainment but are frequently invited to adjacent towns. One of the companies provides a room with a piano for the rehearsals of its orchestra, and another has built a pavilion for outdoor dancing for which music is provided by the employees' band.

These organizations also provide musical entertainment at the lectures on safety and other affairs given for the benefit of employees, their families, and their neighbors. They are therefore an important feature of community entertainment. The association is free and instruction is furnished without cost.

The Curtis Publishing Company has an orchestra to which employees may belong. The concerts which the orchestra gives every few months in the Curtis Auditorium draw large crowds of real music lovers. The orchestra has full instrumentation; and its soloists are recruited from the working force. Rehearsals are held weekly.

Sears, Roebuck and Company are doing much in musical activities. An employees' musical association has recently been organized for the purpose of developing musical talent. Membership is open to all employees who are interested and possess the necessary qualifications. Active organization work is now being carried on with a view to the development of a band,

an orchestra, a glee club for the men, and a chorus for the women.

Glee Club of Metropolitan Life

About nine years ago a few male employees in the home office of the Metropolitan Life Insurance Company who were church choir singers, conceived the idea of organizing a glee club. It was a purely independent organization of employees, who at their own expense engaged a professional conductor and accompanist. Rehearsals were held in a room provided by the company and in return the club gave concerts to the company's office force. As the club grew and became more ambitious, it was necessary to raise funds, and this was done by securing voluntary contributions from the higher paid male employees who pledged themselves to annual subscriptions of approximately \$3 a year. This entitled the subscribers to be listed on the programs as contributory or associate members of the club.

The club has performed at many of the company's banquets and conventions, and in return for this the company has donated a certain sum of money each year to the maintenance fund. The club is still active, having about fifty members, is thriving and doing good work. The expense for the year, covering conductor, accompanist, music, outside paid soloist, and so on, is about \$600.

In addition to the glee club there is an active banjo and mandolin club composed entirely of girls, about forty in number. The club assesses its members, engages its own instructor, gives free concerts to the home office employees, and pays all of its expense except a small annual contribution from the company.

The band was organized in a similar way. It has active and associate membership and its assessments in the form of dues are used to meet current expenses. An experienced band-

master was employed and rehearsals were held almost daily for months until the band became proficient. When the war broke out there was a great demand for the services of this band in the Liberty Loan and War Savings Stamp campaigns, and at that time the company furnished the members with complete uniforms. The band is practically self-sustaining.

Choral Society of Strawbridge and Clothier Company

An unusually good chorus and one which is known throughout the musical world is the Choral Society of the Strawbridge and Clothier store in Philadelphia. It gives two public concerts annually. Its record includes about 130 concerts—12 given in the Academy of Music, 13 at Willow Grove Park where musical organizations of international reputation give concerts, and about 100 in the store at Christmas and Easter. Apart from the choral society, the employees of this store have an orchestra.

Dramatics

Among the many activities which groups may profitably engage in, whether in connection with their own clubhouse or club, are dramatics. As a method of self-expression and recreation too much cannot be said in favor of this form of entertainment. So important did the great English firm of Vickers Limited consider this work, that in July, 1916, they built a special theater for it. Unfortunately the theater was burned a short time later, but during its brief existence it gave 138 performances. Good comedy was most popular.

Excellent productions of playlets and operettas by employees in industrial concerns are not uncommon. The employees of William Filene's Sons Company of Boston, recently gave two performances of a musical comedy written and acted by employees to capacity audiences at a large theater.

Suggestions for "Putting On" a Play

For the benefit of readers who are interested in the practical side of employee dramatics the following brief suggestions are offered. Where employees are to give a play several points must be considered:

1. The size of the cast.
2. The ability of the cast.
3. The kind of play to be produced.

For every play that is given a director should be chosen to conduct rehearsals and see that proper "cuts" in the text are made if necessary to make the play a success.

In addition there must be a stage manager who "holds" the prompt-book and keeps a careful record of stage business—entrances, exits, and of the music, if it is used. Other necessary officers are a business manager who handles all financial matters, a property man who supplies all the objects used, a "light" man to take care of all stage lighting, and a costume man (or wardrobe mistress).

It is advisable that plays should be rehearsed in the halls in which they are given; but if this is impracticable, a room as near the size of the stage as possible should be used. It is important to use the full number of "props" or articles of stage furniture from the very first rehearsal to get the actors accustomed to their surroundings. Another point is to have a copy of the play in the hands of each actor, or at least a copy of his own part in the play.

The first rehearsal should consist of a reading of the play only, each actor taking his part; this will give each member of the cast an intelligent idea of the play as a whole.

At the second rehearsal, the director should "block" out the action. By this is meant supplementing the stage directions of the text, which are often vague, by indicating on a diagram exactly where every article of furniture, window,

etc., is to be placed, and showing clearly what is the action required of each character.

A Final Word

We have discussed some of the more important factors in recreation for employees, but before leaving this discussion we should bear in mind that the question of recreation in connection with industrial establishments is, in the opinion of many who have studied the problem, subject to argument. The attitude of the workers themselves is exceedingly important and enlightening if they are willing to be entirely frank about it. The need varies with conditions. If the community offers good recreation facilities there is less reason for the industry to establish its own equipment.

Employees do not always show enthusiasm for recreational work in connection with their employment. Investigators of working and living conditions among women workers have found, when interviewing these girls and women, frank acknowledgment that they did not care to participate in choruses, dramatics, and other forms of recreation under the auspices of the employer; that many of them did so only because they feared the loss of their position if they refused to join. That this is a true picture is borne out by the experience of those who have seen attempts at whipping up enthusiasm for recreational work in plants where the management was far from clear as to its relations with its employees. An energetic director of recreation may stimulate employees into activity for their own benefit; but unless the employees themselves feel free to enter into or reject such activity it would be better to drop the matter entirely. >

CHAPTER XVII

ACCIDENT PREVENTION—SAFETY WORK

Place of Safety Work in Labor Maintenance

In spite of the fact that common sense as well as experience has taught us that the conservation of man-power through accident prevention is essential to labor stability and maximum production, there are still many firms which have failed to realize the importance of organized safety efforts in industrial plants. The losses in life, time, money, output, and good-will because of accidents which are largely avoidable have been terrific. And the situation, at present, while considerably improved, is still serious and must be dealt with promptly and from an enlightened point of view.

No policy of labor maintenance can be a success unless it concerns itself with the safety factor. The increased use of machinery, the lack of skilled workers, the presence in industry of large numbers of foreigners who are not able to understand orders or appreciate the dangers which confront them at every turn, and the natural tendency of workers who are in dangerous work to grow careless, places a responsibility upon management which cannot be avoided. There is no room for a policy of *laissez faire*, or indifference.

Modern industrial accident compensation laws place the burden of financial losses of accidents upon industry. Public policy demands that employment be free from hazards which can be removed by intelligent, co-operative effort of employer and worker. Viewed, therefore, from the point of economy alone, active measures must be taken to reduce this loss. But there is a more important matter to be considered and that

is labor maintenance. It is hardly possible to attract good workers or maintain them where the hazards of the job are great, and where men are killed or maimed owing to the lack of proper safeguards or interest in the employees' welfare. There is no question whatever but that safety work should receive close attention—it pays. Its results are measurable in terms of money and human values.

Safety Work Pays

Where properly carried on, safety work has brought about startling reductions in the cost of insurance, in the expenses of plant operation, in the expense of labor turnover. It has helped eliminate the fear of premature death or disablement on the part of the worker. Stated in positive terms, it has increased output, has developed the employee's interest in his job, and has made for greater stability. Mutual interest in one another by employer and employee has grown out of this.

In a letter to the author, Arthur T. Morey, General Manager of the Commonwealth Steel Company, writes:

To my mind the question, "Does it pay?" to have a plant safe and operating under the best working conditions is the same as asking, "Does it pay for the sun to shine? Does it pay to be right in anything? Does it pay to be efficient? Does it pay to have good health? Does it pay to have right morale in the shop?" I would say it has paid very handsomely, not only in contentment and satisfaction and harmonious conditions, but in output and financially as well.

To illustrate his point, Mr. Morey further says:

Our liability insurance rate used to be \$2.16 per \$100 of pay-roll. When we found we could safeguard our plant and teach the men safety, we so cut down our accidents that we are now carrying our own risk and in 1918 we had compensation losses amounting to 12 cents per \$100 of pay-roll. We have, of course, put a great deal of money into

the safeguarding and safety work, but even so, we are ahead.

C. W. Price, the eminent safety expert, at a meeting of the New England Branch of the National Safety Council held in Boston in 1917, stated that at least 65 per cent, possibly 75 per cent, of all industrial accidents, deaths, and serious injuries can be prevented.

He stated also, by the way, that not more than one-third of all the work accomplished by the hundreds of companies which have taken up accident-prevention work was accomplished by mechanical guards, and that the other two-thirds was accomplished by educational methods by reaching the workmen and getting their interest.

Reduced Accident Frequency

A survey of about 500 of the larger industries of Ohio by the Industrial Commission of that state brought out the fact that where there was a well-organized safety department with workmen's safety committees, there was a reduction of from 25 to 75 per cent in the number of accidents reported since accident-prevention work was begun. The result of this survey is confirmed by independent observations in a number of leading establishments. We may cite here a few of these. For a graphical representation of accident frequency rates see Figure 13.

In 1914, the Atchison, Topeka and Santa Fé Railway System, employing then about 70,000 operatives, found, at the termination of its second year's work in accident prevention among employees, that it had reduced the number of employees killed 36 per cent and the number injured 10 per cent.

An Alabama shipbuilding concern through the co-operation of shop committees and the enforced use of goggles was able to reduce its eye accidents by 35 per cent.

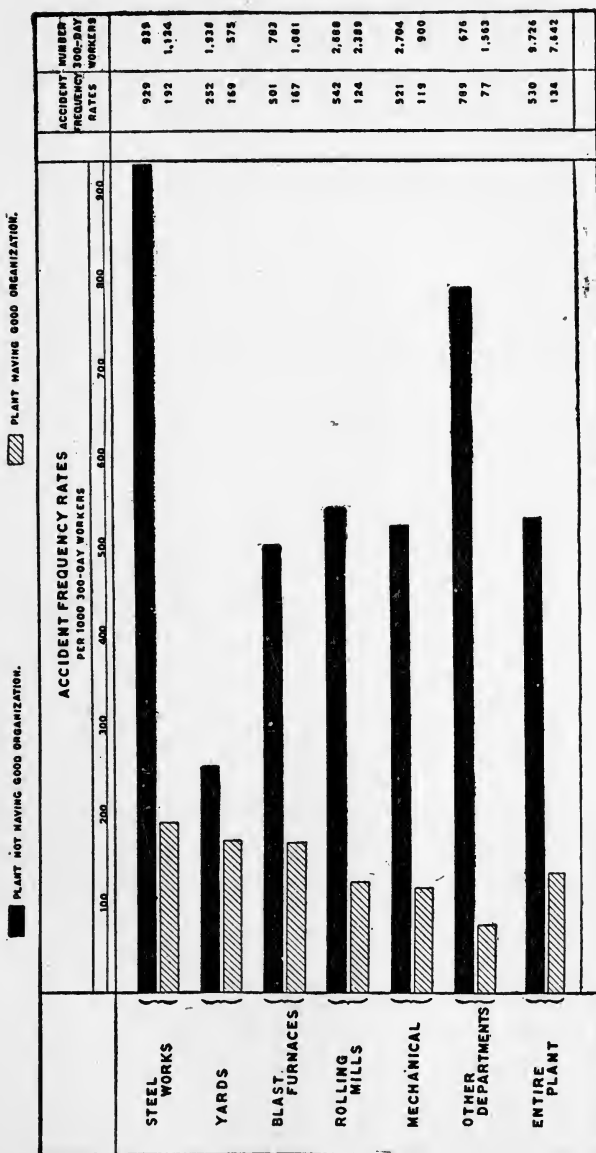


Figure 13. Graphical Representation of Accident Frequency Rates.
In large steel plants with and without a good safety organization.

At the Cadillac Motor Car Company, Detroit, safety organization resulted in a reduction of 64.54 per cent in the number of accidents from September, 1912, to April, 1914, inclusive, and a reduction per 1,000 employees of 22.25 per cent.

Two years ago the Haskell and Baker Car Company, Michigan City, began a campaign for safety, and accomplished a reduction of 51 per cent in the hours lost on account of accidents, made their shop a safe and sanitary one, established a finer spirit of co-operation between the workers and the company, and effected a considerable reduction in its labor turnover.

At the Eastman Kodak Company plants in 1910, there were 109.72 accidents per 1,000 employees. In the first six months of 1914, the rate was 14.99. This decrease in rate was accomplished by the use of safety devices and educational work.

At the Pacific Gas and Electric Company from 1913, the year before safety work was begun, to 1916, there was a reduction in fatal accidents of about 56 per cent.

In 36 months, the United States Cartridge Company effected a reduction of 66 per cent in its accident frequency rate.

The Pullman Company, through its accident reduction campaign, reduced the average time loss in minutes for each employee per month, from 48 minutes in January, 1913, to 14 minutes in May, 1914.

Decreased Compensation Liability

The reduction in the frequency of accidents brings a corresponding reduction in the cost of compensation liability:

The International Harvester Company was able to reduce the cost of compensation in all its plants from 54 cents to 25 cents on each \$100. Since safety work was introduced

in this company in 1910, there has been a reduction of 88 per cent in the death and accident rate.

A prominent contracting firm was able in the year 1916-1917, to reduce its accident frequency from 25 to 55 per cent and the costs of accidents 13 per cent.

At the Dodge Manufacturing Company, safety efforts decreased the compensation liability of the company from 50 cents to 7 cents per \$100.

In one year the Alpha Portland Cement Company was able to effect a reduction of \$9,450.99, or 56.3 per cent, in its expenditure for workmen's compensation at its three plants.

The Milwaukee Coke and Gas Company, started an intensive safety work, and whereas it paid \$3,747.72 in compensation during the first six months of 1913, only \$562.57 was the sum for a similar period in 1914.

A remarkable showing is that of the United States Steel Corporation. In the period from 1911 to 1915, it spent about \$5,000,000 for safety. In the three years 1911-1913, it effected a gross saving in casualty expense of \$4,775,692.64. After deducting its expenses for safety, there remained a net saving in casualty expense of \$2,771,980.35.

National Safety Council Statistics

To sum up, the following records of decrease in the number of accidents following organized safety work, supplied by the National Safety Council which has done notable work in stimulating interest in this vital subject, are conclusive evidence that safety work does pay:

American Smelting and Refining Company	24%
Bucyrus Company	65
Cadillac Motor Car Company.....	69
Commonwealth Edison Company (Public Service Company of North Illinois, and Middle West Utilities Company, Chicago)	40
Commonwealth Steel Company	69

Corn Products Refining Company.....	37
Eastman Kodak Company	78
Fairbanks-Morse Manufacturing Company	72
George Cutter Company	43
Harrison Brothers and Company, Inc.....	75
Illinois Steel Company	65
Inland Steel Company	35
International Harvester Company (Wisconsin Steel Company, Plant)	88
Jones and Laughlin Steel Company.....	78
A. J. Lindemann and Hoverson Company.....	62
Milwaukee Coke and Gas Company.....	83
Neenah Paper Company	83
Packard Motor Car Company.....	72
The Pullman Company	46
Raritan Copper Works	22
Rochester Railway and Light Company.....	33
United States Steel Corporation.....	41

Duties of the Management

In planning and organizing safety work, several fundamentals must be observed. It must begin with the interest, enthusiasm, and full support of the general manager or superintendent. A passive interest on his part will not do; he cannot leave it to the safety engineer or to the various committees. He must use his personal influence to get the work started and then must follow it closely. Like all service work, effort towards accident prevention requires an alert, whole-hearted co-operation which must continue as long as the wheels of production are in motion.

Duties of the Foremen

Next to the management must come the active interest and co-operation of the foremen and other subexecutives. The foremen are really the key men. If they are indifferent, progress will be extremely difficult, if not impossible. It is

the duty of the management to fix the responsibility for accident prevention upon the foremen. They should understand that in order to hold their jobs they must show activity in reducing the accident rate by promoting safety. The duty of a foreman according to the new conception of the position demands something more than good production records; indeed it is doubtful whether production records, however good in other respects, can be really good if preventable accidents occur. A new standard must be set. Modern management will not tolerate avoidable losses in man-power. No foreman is worthy of the name, or of his job, unless he is alive to the human factors governing production and able to demonstrate the qualities of leadership required of those who handle men.

The work should begin with a conference of foremen at which the general manager or the superintendent is the presiding officer. At this meeting the importance of accident prevention work should be impressed upon the foremen and their part in the program outlined. In a meeting held soon after, details of the campaign should be discussed. Each person present, should be asked to suggest rules, to tell how he will co-operate, and to tell of any "danger spots" of which he has knowledge so that these may be listed and action taken to remove them.

The Workmen's Committee

After this conference to outline the general scheme of organization, the workmen's committee should be organized and a joint conference held with the foremen to go over the plans. Workmen's committees are vital to the success of safety organization. Through the workers' co-operation not only will results come rapidly but the by-products will be satisfactory. The plan for organization outlined below is in

successful operation in many plants and is a good example to follow.

Before any plans are developed, except where the concern is small, the management should arrange for the services of a competent safety engineer who will assist in the work and be largely responsible for carrying out the administrative details connected with it. There must be constant contact and co-operation between the engineer and the works manager or management, but he should be a part of the service department and should report to the service manager. While safety work is a part of plant operation, the human elements which it involves are so important that, like health work and industrial training work it should be a definite function of the service department. Modern industrial practice is based upon this principle.

Duties of the Safety Engineer

The safety engineer's primary function is to reduce the number of accidents and if possible, to eliminate them. This he can do in two ways:

1. By suggesting, developing, and establishing safeguards, with the assistance of the management, foremen, and workers.
2. Through education of management and employees.

These duties are diagramed in detail in Figure 14. The safety engineer should direct all accident prevention work. A part of his program should be regular inspections of all departments. Records of unsafe conditions should be kept and followed up to make certain that the "danger spots" are eliminated. He should investigate and report upon serious accidents and prepare careful statistics as to all accidents. A large part of the safety engineer's success will depend on how well he presents his facts to the management and to the

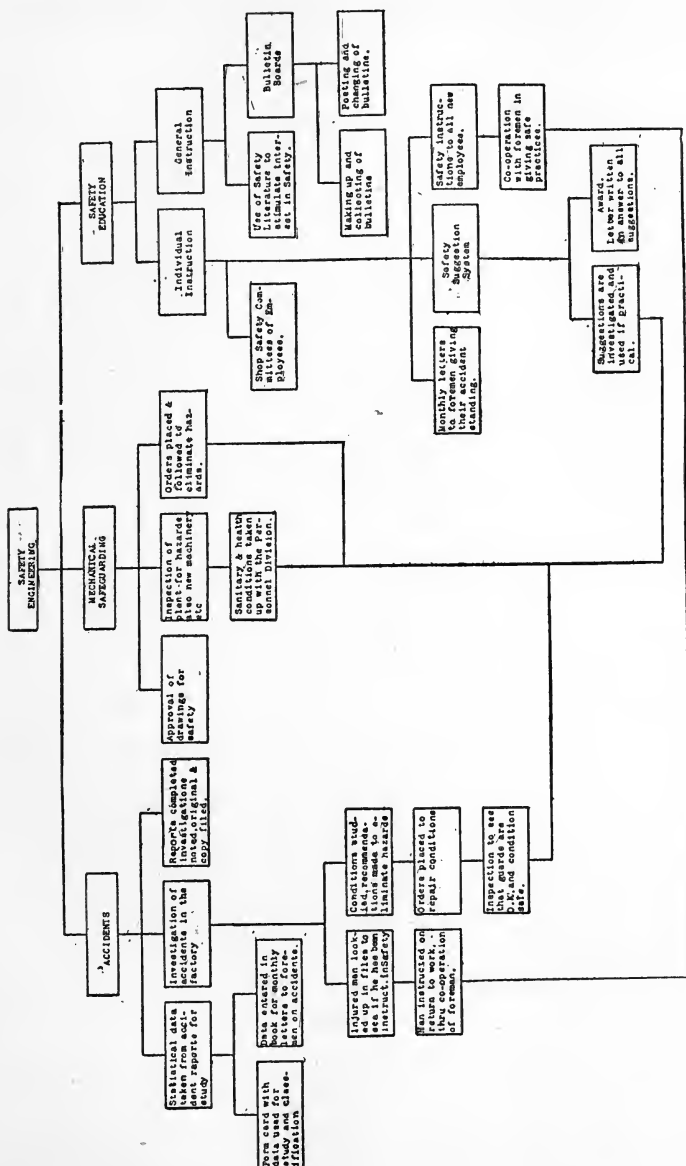


Figure 14. Diagram of the Duties of the Safety Engineers

As conceived by the Winchester Repeating Arms Company. (Reproduced by courtesy of National Safety Council, Chicago, Illinois.)

workers. Graphic representation rather than mere statistics should tell the story.

Monthly Record Sheet for Accidents

The form (Figure 15) produced below is useful in driving home the losses from accidents. When the general manager has to take a foreman to task for excessive proportion of accidents, it is often difficult to make the foreman appreciate his responsibility—his personal relationship to those accidents—unless he can be made to visualize the losses. The figures as to accidents do not mean very much to a foreman unless they can be interpreted to him in terms of lost production and money loss. Accordingly, several of the plants with which the author has been associated have adopted the plan of a monthly record sheet for each department and each foreman.

TIME LOST THROUGH ACCIDENTS			
WEEK ENDING.....			
Employee	Check No.	Nature of Injury	Time Lost

MONTHLY RECORD		
Foreman	Time Lost	Money Value
Total.....		

Figure 15. Weekly and Monthly Record Sheets of Accidents

Showing loss in money and production owing to accidents.

A column is provided in this sheet for the name of the subforeman, another for the number of hours lost through

accidents in the department, and another column for the money value of the hours lost. All minor accidents are to be recorded, and a minimum of fifteen minutes set as the time lost in handling such accidents. In order to prevent the possibility of the foremen's discouraging men with minor injuries from reporting to the nurse and so reducing the record of their department, the management made it clear that foremen would be held personally responsible for lost time resulting from complications arising from neglected treatment in such cases.

Each week the foreman receives a sheet containing the names of employees who received treatment for injuries, statement as to the nature of their injuries, and, where possible to determine it, the time lost. These sheets are summarized on the monthly record, which contains no names of employees, and are sent to foremen with the request that the sheet be posted in a conspicuous place in the shop. In evaluating the time lost, only approximate figures are given, but they are conservative for they show the loss in employees' time only. If the cost to the concern of time lost was included, the figures would be even more startling. This would mean a good deal of work, however, and for the purpose of the plan outlined above, would be unnecessary.

Safety Specifications for New Equipment

An important phase of the safety engineer's work, often overlooked, is the purchase of new equipment. Modern practice requires all new equipment and all changes in old machinery to be approved as to safety specifications by the safety engineer. Large sums of money have been saved to industrial plants in this way.

Suggested Plans for Organization

For plants employing over 500 persons, the following organization plan will prove successful:

1. Plant or general safety committee
 - (a) Chairman—plant superintendent or assistant.
 - (b) Secretary—safety engineer.
 - (c) Three or more department heads of foremen.
2. Workmen's or departmental safety committees
 - (a) Chairman—shop or department head.
 - (b) Secretary—safety engineer.
 - (c) Three to five workmen appointed by the chairman to hold office for a period not exceeding three months.

The plant committee should assume general supervision of all safety work, set standards, plan rules and safeguards, and outline educational work for safety. Meetings held semi-monthly are generally sufficient.

The workman's committee should make regular and frequent inspections and should formulate plans for the protection of the worker against dangerous conditions which the inspection tours disclose. Reports, recommendations, and suggestions should be submitted in writing, on a form designated for that purpose. It should also be the business of the members of this committee to investigate and report on accidents in their departments. Meetings should be held once a month.

In plants employing less than 500, there should be a safety committee headed by the superintendent as chairman, consisting of the foreman of each department and a workman for each department. If a safety inspector is not employed, a member of the safety committee may be elected secretary. Meetings should be held monthly. These various plans of organization are illustrated by Figure 16.

The Eastman Kodak Company's Organization

A splendid example of well-organized departmental safety committees is that of the Eastman Kodak Company, where

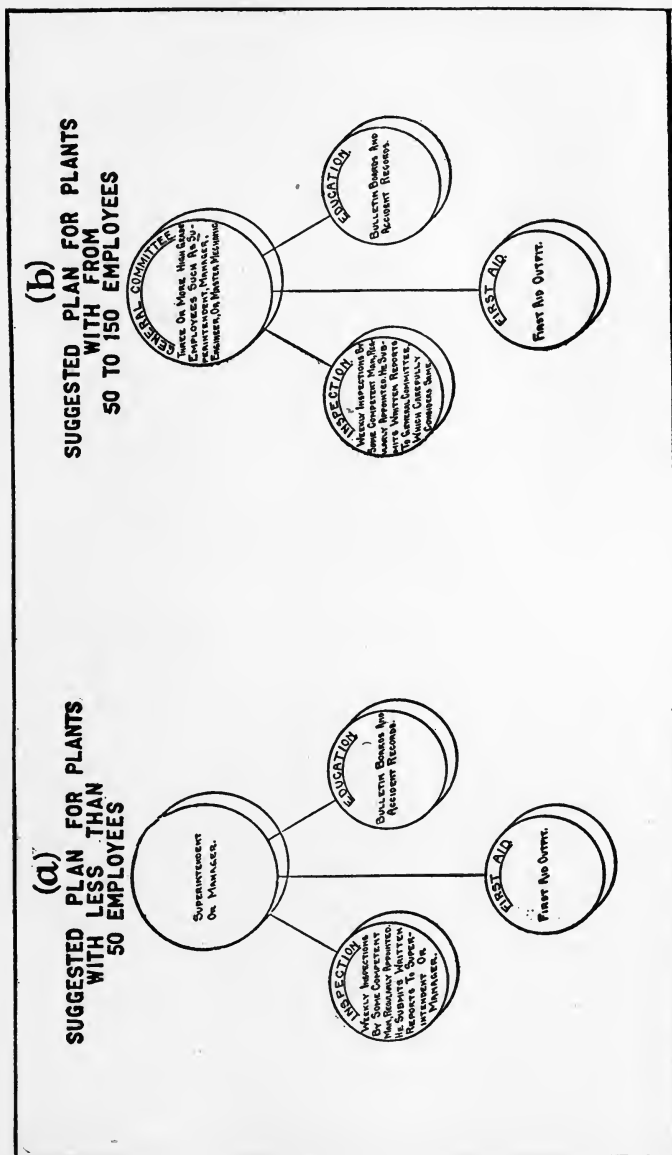


Figure 16. (a) Organization Chart for Safety Work

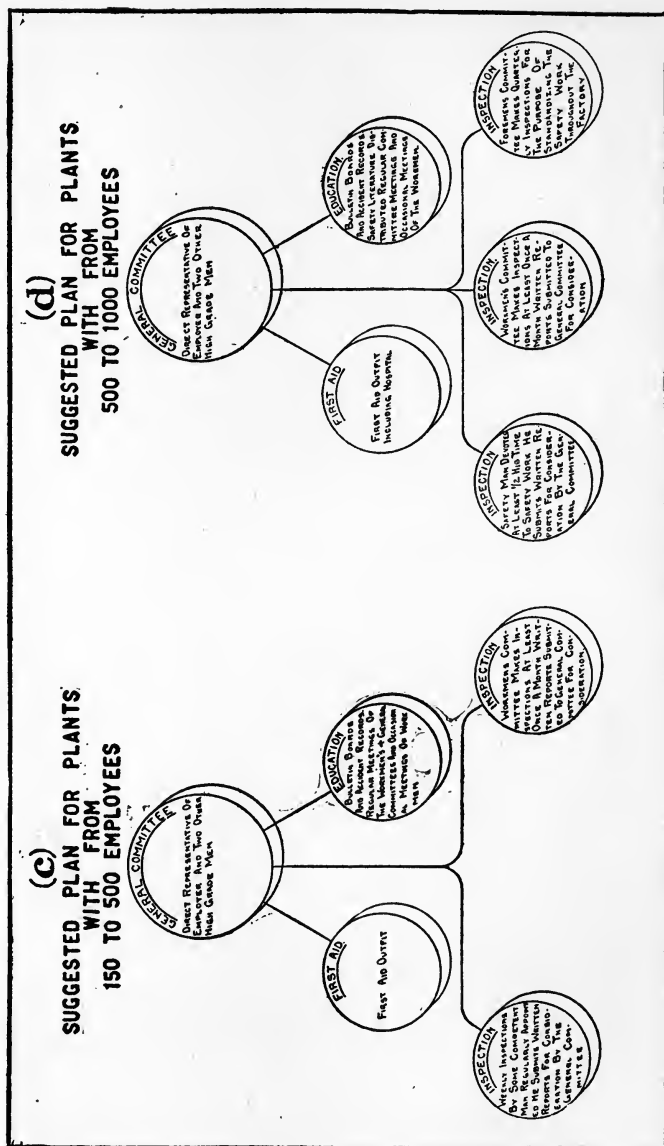


Figure 16. (b) Organization Chart for Safety Work—(Continued)

the committees at the different works of the company consist of foremen, subforemen, and workmen. The personnel of these groups is changed periodically so as to enable every man in the department to serve at one time or another. Through their suggestion system (see Chapter XVIII), it is possible to maintain the interest of committee members whose terms expire. The work of the committee consists chiefly of a weekly inspection of general conditions, the machinery safeguards, and fire equipment of each department. After the weekly inspections the several committees meet in the offices of their respective superintendents and discuss their work. The superintendent acts as chairman. Records of these conferences are made and are sent to the managers with recommendations for their consideration and approval. Ideas and suggestions are interchanged between the various departments and works of the company.

The United States Steel Corporation's Plan

The United States Steel Corporation has an extensive safety organization for its various plants. A committee of eight, representing seven of the large subsidiary companies, is responsible for the general safety policies of the corporation. It meets quarterly, makes inspections and studies all serious accidents with a view to their prevention in the future, and passes upon safety devices. There is also a committee of sanitation made up of four presidents of subsidiary companies and an officer of the corporation.

The corporation maintains a central bureau of safety, sanitation, and welfare, to co-ordinate the activities of plant committees to improve their conditions. The bureau acts as a research agency as well as in an administrative capacity. Through it, information is exchanged among the plants so that they may have the best thought on their work. Contact

with municipal, state, and national authorities and employees, enables the bureau to get the best information available.

There is a central safety committee consisting of important officials from each of the plants, mines, or railroad divisions. It holds monthly meetings and its duties are similar to those of the Steel Corporation safety committee. It carries on inspections of the mills. Each plant has a safety committee made up of officials whose duties resemble those of the central safety committee but are applicable only to their individual plant. The department and special committees are made up of foremen, master mechanics, and skilled workmen. Meetings are held weekly or monthly, periodic inspections made, and special investigations of particular problems conducted. The workmen's safety committee at each plant consists of three workers from the rank and file. Membership is rotated to enable every worker to serve.

Interesting the Worker in Safety

After the proposed safety work has been organized, the next step is to secure the interest of the worker and his active co-operation in carrying on the work. The campaign for safety must continue every day in the year—sporadic efforts will not bring results that count. Unless it is planned with a view of interesting the worker and is carried on so skilfully as to draw out this voluntary co-operation, it is likely to degenerate, after the first spurt of enthusiasm, into occasional half-hearted nagging, which will invariably provoke the worker's hostility. Under such conditions safety work had better not be attempted at all.

Safety Meetings

Fortunately the interest of the worker may be gained in a variety of ways. Safety meetings are a great aid. They should be held often and should have some definite message

to put over. Meetings must be carefully planned and the points for discussion outlined. Luncheons or dinners given by the safety committees occasionally help to maintain interest and enthusiasm. When a concern has several branches in various cities it might be well to arrange for regular annual safety meetings of department superintendents and assistants at some central place. This is the practice of a large manufacturing corporation.

The key to the success of safety meetings in a plant is the superintendent. As the National Safety Council points out in one of its excellent bulletins:

If he can impress the men with his sincerity of purpose, that he is heart and soul with them in the fight against avoidable accidents; that, in fact, he is the best "safety-first" man on the committee; if he will greet the members cordially, make them feel at home, exercise a friendly tact in drawing out the best that is in them, and thus create an environment of good fellowship and co-operation in the work set before them, he will have done more than any other man could do to solve the problem of interesting and profitable meetings. If, on the other hand, he is cold and indifferent, narrow in his views, official in his bearing, and unresponsive, if not tacitly antagonistic, to the suggestions offered, he can kill the meeting and with it the vital spark of the whole safety movement.

The question of when to make special efforts in pushing the campaign is one which frequently comes up. Specially intensive work is necessary during the months preceding those in which accidents are most frequent. The accident records will help determine the time when additional effort should be made to promote safety. A certain plant, for instance, found that the month of June represented the largest number of eye accidents. Additional precaution and special campaigning during this time resulted in a material reduction in the number of those accidents.

Other Means of Fostering Interest

The United States Steel Corporation gives entertainments at their works and mines, as well as in the churches and schools, and presents stereopticon talks and motion pictures regarding dangerous conditions and practices. The companies issue calendars containing prominently displayed safety slogans and pictures to their workmen. Another feature of the safety campaign is the free distribution of lead pencils, buttons, watch-fobs, and drinking cups, stamped with safety mottoes.

A Pennsylvania plant last summer gave each of its employees a light cap bearing the words "Safety First" in bold letters around the crown.

Signs containing safety slogans in various languages are successfully used by plants employing much foreign labor. Usually one of these signs is placed outside the entrance to the plant in the waiting-room of the employment office. Others are distributed about in prominent places in the plant.

Safety bulletin-boards may be used to maintain enthusiastic support of safety efforts. The material on these bulletin-boards should be neatly and attractively arranged and changed frequently. So many boards are cluttered up with dog-eared papers and old matter that they are rarely read. The material on the board should be arranged to drive home one central idea. Too many diverse items cause confusion of thought.

A feature of the safety work of the Dodge Manufacturing Company of Mishawaka, Indiana, is what they call "the danger target" consisting of a red ball in the center surrounded by a blue band, this in turn by a narrow band of white, and then a broad yellow band. The red ball bears the words "Stop, Think, Be Careful." These danger targets are placed in dark corners.

An effective method of driving home the safety idea is through slogans printed on pay envelopes. A series of such

No. _____	Simonds Manufacturing Company CHICAGO, ILLINOIS Help us keep in good condition all Safeguards and Signs installed to BOOST SAFETY . The Suggestion Boxes are available for this as well as reporting new dangers.
Days _____	
Hours _____	

**EASTMAN
KODAK CO.**

—

**Remember—
It is better to
cause a delay
than an
Accident**

**AMERICAN STEEL
& WIRE COMPANY**

Read the outside before spending the inside.

Safety First

is the best insurance you can get—both for yourself and your family.

**THE NEW JERSEY
ZINC CO. (of Pa.)**

PALMERTON, PA.

—

SAFETY MEANS
more than property,
it means **LIFE**; per-
haps your life or
that of one of your
family.

Safety Committee

**International Harvester
Company**

CHICAGO, ILLINOIS

—

**Do not neglect
small injuries.
See the Company
doctor.**

Blood poisoning is
painful and danger-
ous—often cripples
people for life.

Figure 17. Examples of Slogans on Pay Envelopes
A series of envelopes with slogans provide an inexpensive and profitable method of driving home the safety idea.

envelopes with about twenty-four or more slogans, if possible one for each week, is inexpensive and profitable. A few examples are here given. (See Figure 17.)

The Avery Company's Campaign

One of the finest safety campaigns is that conducted by the Avery Company of Peoria, Illinois. Its colored charts depicting the work of the safety inspector are telling in their effect upon the workers. For example, one of the shop rules of the company provides that "employees receiving injuries of any nature, no matter how small, *must* report immediately in person to the dispensary for treatment." As a result, in 1914, no time was lost in 98.3 per cent of the accidents. Other years have a similar record. At the foot of each chart is the statement, "We cannot profit through our Accident Prevention and Medical Aid System until our men have benefited and profited thereby." A booklet called "A Letter to the Workmen of the Avery Factory," discussing safety and issued to each workman, is a masterpiece.

An Accident Prevention Score-Board

The Dodge Manufacturing Company which has already been mentioned, has done notable work in accident prevention. One of the features of their work is their unique accident prevention score-board which is here reproduced (Figure 18). This score-board is 24 feet long and stands inside the main gate. The starting point for the month and for the year is 1,000. Divisions are charged with all accidents resulting in absence of more than one day. "Each day's absence," says W. L. Chandler, in describing the scheme, "bears a percentage charge in proportion to the total number of 'men-days' per month division." The question of the degree of hazard is eliminated as being equalized in the selection of men because of their fitness for their particular kind of work.

To meet the variation in the sizes and groups of workers the company has established a differential charge per man per day for time off "which is computed by reducing each division

HELP US PREVENT ACCIDENTS

ACCIDENT PREVENTION SCORE-BOARD DODGE MANUFACTURING COMPANY

FOREMANS' MONTHLY COMPETITION

ALL DEPARTMENTS
HAVING A SCORE OF 1000,
OR THE HIGHEST THREE
SCORES, WILL RECEIVE
SPECIAL PRIZES, AS PER
MONTHLY PRIZE LIST.

PRIZES FOR FOREMEN

THE FOREMAN EARN-
ING THE LARGEST NUMBER
OF FIRST PRIZES IN THE
YEAR, WILL RECEIVE A
GOLD WATCH AT THE END
OF THE YEAR.

NUMBER DEPT.	NAME DEPARTMENT	NAME FOREMAN	REDUCTION FOR ABSENCE	PERCENTAGE MONTH	PERCENTAGE YEAR	RANK FOR MONTH	RANK FOR YEAR
FOUNDRIES							
JUNE							
30	CUPOLA & YARDS	L. King	19.	1000	1000	1	1
17	CORE ROOM	C. Schnau	10.	1000	1000	1	1
12	SOUTH	W. Middleton	7.5	1000	1000	1	1
15	EAST	R. Allen	14.	1000	990	1	7
14	WEST	J. Bickel	16.	984	953	2	15
18	PATTERN	E. Gartner	39.	1000	1000	1	1
16	CHIPPING	J. Stult	6.	934	987	5	8
MACHINE SHOP							
5	BEARING	J. Miller	15.5	1000	995	1	4
3	SHEAVE	R. Priem	20.	1000	883	1	18
3-A	MACHINE	J. Rough	28.	1000	950	1	16
3-B	CRECTING	J. Conick	19.	1000	987	1	2
4	SHAFTING	W. Mounts	32.	1000	797	1	19
6	CLUTCH	T. Kenyon	10.	1000	942	1	17
2	IRON PULLEY	G. Friedman	10.	950	965	4	13
20	TOOL	C. Peterson	28.	1000	993	1	3
WOOD SHOP							
1-A	SEGMENT	F. Yost	11.5	1000	1000	1	1
1-B	ARM	J. Philion	32.	1000	1000	1	1
1-C	ASSEMBLING	G. Marsh	7.7	1000	991	1	6
1-D	FINISHING	G. DeGroote	28.	1000	977	1	9
OTHER DEPARTMENTS							
7	STEEL SHOP	G. Hunt	13.5	1000	993	1	5
27	INSPECTION	G. McNeal	52.	844	974	6	10
25	SHIPPING	G. Shobe	8.7	983	948	3	16
21	YARD & SAW MILL	E. Dily	11.	1000	971	1	11
23	POWER	W. Tupper	38.	1000	1000	1	1
22	MILLWRIGHT	S. Brubaker	26.	1000	1000	1	1
19	METAL PATTERN	O. Ford	104.	1000	965	1	12

ANNUAL COMPETITION GENERAL

ALL DEPARTMENTS
SCORING 1000 FOR THE
YEAR, OR THE ONE HOLD-
ING RANK ONE IN YEARLY
PERCENTAGE WILL RECEIVE
TWO DAYS PAY EXTRA.
SECOND HIGHEST
WILL RECEIVE ONE DAYS
PAY EXTRA.

PRIZE LIST FOR
MONTH OF _____
192 _____
192 _____
192 _____

Figure 18. An Accident Prevention Score-Board

Used at the Dodge Plant. Each day's absence bears a percentage charge in proportion to the total number of "men-days" per month per division.

to men-days for each month, and using a multiplier of 10 to raise the figures to a more workable and understandable basis. A division working 50 men for 25 days per month amounts to 1,250 men-days; dividing 1,000 by 1,250 and mul-

tipling the result by 10 makes 8 points for each man off one day on account of accident in that division. Wide variations noticed in a year's competition in the different divisions should be the basis of an adjustment of this penalty charge, which adjustment should not have to be made during a month." This makes penalties equal in large and small divisions. As was stated above, minor accidents which do not mean much loss of time are not considered and there is no penalty for the day on which the accident occurred.

The employees of the divisions, which score 1,000 at the end of 12 months, receive two days' extra wages or such portion of that amount as their time and employment bears to the full year. Should no department score 1,000, then the department ranking highest receives two days' extra pay, and the second highest extra pay for one day. General foremen of a division which earns these awards participate in the award, but may receive only one award if other divisions under them have a perfect score.

Development of Self-Control

The thing to bear in mind in the whole matter is that, as W. Atterbury of the Pennsylvania Railroad puts it, "The problem of safety is not altogether a question of rules and their enforcement, safety appliances and their application, but the development of inherent self-restraint and control." Accident prevention is a matter of training and education, a matter of intelligent consciousness of dangers, and team play in their elimination.

CHAPTER XVIII

DEVELOPING A SUGGESTION SYSTEM

A Suggestion System as an Investment

There can be no question that a carefully devised plan for stimulating suggestions relating to safety, increased production, and improvement of equipment, is a most desirable asset in any organization. Experience has shown that some of the most profitable measures ever undertaken by a number of concerns were prompted by the initiative and resourcefulness of some employee. But of still greater importance is the fact that a working force that takes sufficient interest to give ideas to the management is a triumph in good relations.

And yet the story of suggestion work throughout the country is not, excepting a few shining examples, one of much encouragement. Suggestion plans are started, live for a while, and die out. Oftentimes the very start is abortive. Does this argue that the plan is not workable or worth while? It would be a mistake to think so, despite the unfavorable results that have attended many a suggestion system.

In the first place, let us face this question: Have the individuals that make up the personnel of an establishment any thoughts of their own, or are they merely automatons? No intelligent person would make or support the latter assertion. The history of inventions disproves any notion that a body of workers lacks the power, or that no individual in such body has the power, to make some worth-while contribution. Even though a crowd may have what is called "average qualities," by the very law of averages it should be possible to draw from it something that will be a step forward.

The Influence of Managerial Attitude

There are two kinds of management, viewed from the standpoint of interest in the employee: (1) the kind that expects nothing in the way of initiative from its employees, and therefore does nothing to make any contribution welcome or possible; (2) the other kind which believes fully in what may come from a number of people thrown together in a common task and charges itself with the responsibility of furnishing these people with incentives to use their wits and original gifts.

In other words, the attitude of management is the important fact in considering suggestion systems. Is the attitude one founded on faith in the men associated with them? Then we may expect things to happen. Is the attitude one of lack of faith, disbelief in the mentality of the men? We may expect in this case a paralysis of initiative, a reluctance to say or do anything that will help the management of the enterprise. Attitude is important right down the line, from the president to the sub-boss.

"Selling" the Idea to Managers

A suggestion system can be made to work if enough thought is given to its organization and maintenance. The very first step in undertaking it is to "sell" it to every man who holds any place of authority, however slight, in the organization. The object of selling it is to put an end to the obstruction to initiative that a wrong attitude always causes. The wrongness of the attitude does not necessarily consist in an active belittlement of the people and their capacities. It seldom goes that far. More usually the wrong attitude is the result of the executive's lack of imagination. The fact is probably that he has never had his attention called to the possibilities of learning something from the man below as well as from the man above.

Many persons in authority need to be told something of the excellent ideas and devices that have come in the past from men at the bench, from men so frequently overlooked because they are shy, or hesitating, or timid. Creative minds are not always aggressive. Thinking is a silent process, and its expression often depends on the encouragement that it receives. It is very easy to freeze the workers' enthusiasm, initiative, and productive spirit of co-operation.

Unpleasant experiences in the past with the wrong attitude have made many workers feel that any suggestions on their part, no matter how important to an organization, would only meet with rebuff, and possibly some kind of petty reprisal at the hands of their immediate superior. Such occurrences, unfortunately, have not been rare; indeed they are the tradition of many a shop.

Obviously there is need of building a new and better tradition. It will take time, but it is worth all the time and effort it costs. One first duty of the management is to make known in the most effective way possible its confidence in the ideas that anyone connected with the organization feels like transmitting. No suggestion or communication from an employee should ever go unanswered. Even if the bulk of the communications should prove low-grade ore, the fact of having an interest aroused will carry the organization a long way forward.

At the risk of triteness, it should be insisted that no one should ever be humiliated for having tried to be of help. There should always be a careful explanation given for the inability to accept a suggestion.

The Right Foundation

Back of any suggestion system, however, is the necessity of giving the people from whom suggestions may be expected some insight into the workings and the problems of the estab-

lishment which engages them. The trouble with many establishments is that they literally pitchfork new employees into their departments. There is too little introductory work, work of initiation, work of "selling" the plant's standards and ideals to the newcomers. In order to think, men must have something to think with and think about.

So the second point in making a suggestion system successful is to build up in the minds of the employees a useful and stimulating conception of the work and organization they give their time to.

Stimulating the Employee's Interest

Finally, a suggestion system should be a co-operative affair. The employees should be active in carrying it on, they too should be in the place of judges so that they may view things from the angle of management. If, in the course of time, a large number of employees serve as members of suggestion and prize committees, the organization will find a good-sized nucleus of alert interest throughout. There might well be set up what might be called competitive committees on suggestions, with prizes for the committee which meets with the largest measure of response from the group or departments to which it may be assigned. This decentralizes suggestion work, as it really should be decentralized.

While final judgment and awards may clear through one central body, the burden of the preliminaries should be distributed throughout the organization.

Dangers of Mechanical Management

All that has been written in the foregoing is based on the assumption that suggestion systems may be made an important asset in management and its problems. It is written in the belief that there are unused resources of teamwork and contributions to progress in the average concern. These assump-

tions coincide, fortunately, with the expressed desires of large numbers of people who wish to find a stimulus to thought in the work that they do. There is a marked reaction against a too mechanical scheme of management. This protest against rigid and unimaginative conduct of industry has bewildered many an executive. His confusion is due to his failure to see that men are asking for larger opportunities to be of service. So far from being a source of anxiety, this tendency is one of the most hopeful facts in industrial life today. The wise executive sees in these stirrings the hope of creating a more responsive organization. He knows that inertia holds back all prospect of sound growth. He regards it as his chief duty to sustain the spirit of co-operation, zeal, and inventiveness that his associates in the shop can develop.

Tapping a Reserve of Energy

Veteran executives, and those endowed with human interests know that men in the shop are not the same men outside the shop. Many of these men are at their best outside the shop, and after working hours. They give rein to qualities that the organization they work for may be badly in need of. Why should men be less than their best during working hours? Why should they reserve their most valuable capacities for usefulness outside the work day, why withhold their best energies from their industrial life? It is not because they are perverse. It is because the management has not on the whole done its full duty by them, and sought to deserve such best service. Observe one organization and you see a fine spirit at work. You know that human nature is giving a good account of itself there. Go to another, and you feel certain, after a few moments that no man will do a bit more than he absolutely has to, that his affections, loyalties, interests, and even his wits were checked at the factory gate when he

checked in that morning. Who is responsible for this condition?

In this connection, the experience of concerns with well-organized suggestions is well worth the attention of modern industrial managers.

The Eastman Kodak Company's Plan

One of the best plans is that of the Eastman Kodak Company. Its practical aspects are described here for the benefit

EASTMAN KODAK COMPANY—KODAK PARK WORKS		No. _____
Preliminary Suggestion Blank		
<small>USE THIS FORM WHEN IDEA IS NOT COMPLETE OR FULLY WORKED OUT</small>		
<small>We welcome and will investigate carefully any suggestions which will benefit the Company and its employees. An award will be made for all suggestions adopted according to their merit. Put sketches on a separate sheet. For complete information regarding use of Suggestion Blanks see directions printed on back of forms.</small>		
I SUGGEST:		
I believe the above suggestion will result in (1) Improvement in Products (2) Reduction in Costs, (3) Improvement in Manufacturing Methods (4) Reduction in Accident or Fire Hazard (5) Conveniences I am asking assistance from and will report in weeks. Signature of Foreman Signed Reg. No. Dept. Date		
Employee's Coupon—Preliminary Suggestion Blank		
I SUGGESTED:		No. _____
Date		<small>NOTE—Be sure to keep this coupon for reference.</small>

Figure 19. Preliminary Suggestion Blank. (Size 8x7 $\frac{1}{8}$.)

This blank is used when an employee desires credit for a suggestion which he has been unable to work out completely. No reduction for advice or help is made in the amount of the reward if the suggestion is adopted.

of those who would adopt a similar scheme. Of course, modifications will have to be made to suit the conditions peculiar to each concern. At the Kodak Park works of the company at Rochester, two sets of blanks like those here reproduced (Figures 19 and 20) are left at various convenient points. The employee writes out his suggestion, describing

his idea fully, seals it in an envelope marked "Manager's Office," and drops it in one of the locked mail-boxes which are provided for this purpose and from which daily collections are made and the contents delivered to the manager's office.

As soon as the suggestion reaches the manager's office it is stamped with the date of the collection. The company found this necessary owing to the fact that often different employees would make suggestions regarding the same thing at practically the same time and the question of priority would

EASTMAN KODAK COMPANY—KODAK PARK WORKS		No 48245
Regular Suggestion Blank.		
USE THIS FORM WHEN IDEA IS COMPLETE AS DESCRIBED HEREIN.		
<p style="font-size: small;">We welcome and will investigate carefully any suggestions which will benefit the Company and its employees. An award will be made for all suggestions adopted according to their merit. Put sketches on a separate sheet.</p> <p style="font-size: small;">For complete information regarding use of Suggestion Blanks see directions printed on back of form.</p>		
I SUGGEST:		
<p>I believe the above suggestion will result in (1) Improvement in Product (2) Reduction in Costs</p> <p>..... (3) Improvement in Manufacturing Methods (4) Reduction in'</p> <p>Accident or Fire Hazard (5) Conveniences</p> <p>Signed Reg. No. Dept. Date</p>		
Employee's Coupon—Regular Suggestion Blank		
I SUGGESTED:		No 48245
<p>Date</p> <p style="text-align: right; font-size: small;">NOTE.—Be sure to keep this coupon for reference.</p>		

Figure 20. Regular Suggestion Blank. (Size 8 x 7½.)

This form is used when the idea has been fully worked out.

arise. A printed acknowledgment (see Figure 21) is sent to each person who has submitted a suggestion and a copy of the suggestion is filed (see Figure 22).

A copy of the suggestion is sent to the superintendent of the department with which the suggestion is concerned and the superintendent studies the suggestion and returns it with his comment to the manager. Should the recommendation

of the superintendent (Figure 23) receive the indorsement of the manager, the superintendent will be instructed to carry out the suggestion and a report like that in Figure 24 stating

EASTMAN KODAK COMPANY—KODAK PARK WORKS SUGGESTION DEPARTMENT ACKNOWLEDGMENT OF SUGGESTION <hr style="width: 10%; margin: 5px auto;"/>	
KODAK PARK, _____	
To _____	
We acknowledge the receipt of your suggestion number _____ for which we thank you. It has been referred to Mr. _____ for investigation. You may bring to his attention any further information that you may have concerning your idea.	
Very truly yours	

Figure 21. Acknowledgment of Suggestion Form. (Size $7\frac{3}{4} \times 4\frac{3}{4}$.)

Receipt of either the preliminary suggestion blank or the regular suggestion blank is acknowledged on this form.

that the idea has been accepted, is sent to the maker of the suggestion. A report is likewise sent if the idea fails of adoption.

EASTMAN KODAK COMPANY—KODAK PARK WORKS SUGGESTION DEPARTMENT FILE COPY OF SUGGESTION No.	
---	--

Figure 22. Form Used for Filing Suggestions. (Size $8 \times 6\frac{1}{2}$.)

An important feature of the plan is that each suggestion as it passes through the several steps in the process of adoption or rejection is known only by number. This insures

fairness in judgment and the idea stands or falls only on its merits.

A list is made each month of all suggestions which are adopted and put into effect during the month, as well as a brief description of each suggestion and its advantages, and a copy is sent to each member of the suggestion committee, which consists of the superintendents of the various departments.

EASTMAN KODAK COMPANY—KODAK PARK SUGGESTION DEPARTMENT SUPERINTENDENT'S COPY OF SUGGESTION No. _____			
<p>Maker considers suggestion will result in (1) Improvement in Product _____ (2) Reduction in Costs _____</p> <p>_____ (3) Improvement in Manufacturing Methods _____ (4) Reduction in _____</p> <p>Accident or Fire Hazard _____ (5) Conveniences _____</p>			
<p>Date _____ Class _____ Rating _____ Award _____ Cost _____</p> <p>Saving per Year or Value of Suggestion _____</p>			

Figure 23. Superintendent's Copy of Suggestion. (Size 8 x 6½.)
 The superintendent studies the suggestion and makes his recommendation on this form.

Awards for Suggestions

Awards for the suggestions of preceding months are made at a monthly meeting. Each suggestion which was adopted and put into effect during the month is taken up by the superintendent under whose supervision it was put into practice and he states what award, if any, in his opinion the suggestion should receive. The advantages of the suggestions are discussed and a vote is taken as to awards.

The amounts of the awards are not fixed. One dollar is given for each suggestion adopted. The practice of the

company until a few years ago was to set aside \$700 for awards but now the practice is to reward suggestions without restriction as to the total amount to be distributed. In the first year of the plan \$50 a month was awarded and a special annual prize of \$100 given for the best suggestion of the year, but as in some months there were no suggestions which merited the first prize of \$25, the plan was modified. The rule was inaugurated that no suggestion could compete for a prize

EASTMAN KODAK COMPANY—KODAK PARK WORKS SUGGESTION DEPARTMENT REPORT ON SUGGESTION <hr style="width: 20%; margin: 10px auto;"/>	
KODAK PARK, _____	
To _____	Reporting on Suggestion No. _____
<small>In case your suggestion is adopted, be sure to let us know in case it is not put into operation in a reasonable time, as it may have been mislaid or overlooked. Awards are not made until adopted suggestions are put into operation.</small>	

Figure 24. Report Blank on Suggestions. (Size 8 x 6½.)

A report stating whether or not the idea has been accepted, is sent to the maker of the suggestion.

which had not been in operation for at least one month previous to the suggestion meeting, and that should there be no suggestion meriting the first prize this amount would be withheld and used as a fund from which to award special prizes at the end of the year. As this rule proved to be unpopular, it was decided to make awards every two months. At the present time, however, awards are made each month even when the winning suggestion is not up to the usual

standard. It should be noted here that the company pays its awards in gold.

The company believes that monthly rewards are the most desirable method of stimulating suggestions. When awards were made at quarterly periods there would be a flow of suggestions for a week or two after but there was a considerable drop for the remainder of the period. Now that monthly distributions are made the flow of suggestions is steady.

A noteworthy feature of the Eastman plan is that, contrary to the practice in other concerns, it includes foremen in its awards. Some of the best ideas were obtained by the company in this way. The experiment was made of placing the foremen in a competitive group removed from that of the workmen but this proved unsatisfactory.

The National Cash Register Company's Plan

One of the most successful suggestion systems is that of the National Cash Register Company. This company conducts six months' suggestion contests and offers cash prizes for ideas. Fifteen hundred dollars are offered to 165 employees whose suggestions are especially good; in addition, one dollar is given for each adopted suggestion to those who fail to win one of the larger awards.

The rules provide that all employees except executive heads, supervisors, department heads, foremen, job foremen, section heads, and sales agents, may compete. When similar suggestions are submitted by two or more employees, credit is given to the one from whom the idea was first received.

Suggestions concerning maintenance repairs, such as carpenter work, painting, and electrical, millwright, and plumbing work are not considered as awardable suggestions unless accompanied by an improved method of doing the work.

Suggestions made by employees affecting their own work, when it is within their province to make the change or im-

provement, and in fact when it is their duty to improve, are not considered for the dollar prize. If, however, the suggested change has to be authorized by a superior, it is considered as a suggestion and the suggester entitled to the one-dollar prize, if adopted.

All suggestions must be written clearly so that the idea may be easily understood. The date and signature of the employee must appear on each suggestion. Sketches must be made on separate sheets and attached to the suggestions to which they refer. Any employee who wants information or assistance in writing up his ideas may obtain help from the suggestion department by writing or calling personally. The company gives credit for suggestions which have value but which for some reason cannot be put into operation at the time.

Specific directions are given as to the kind of suggestions welcomed. The company desires suggestions affecting the business in the following manner:

1. Increasing co-operation.
2. Improving the quality of the company's work.
3. Decreasing the cost without decreasing the daily wage and lowering the quality.
4. Eliminating unnecessary and duplicating work.
5. Better plans for shopwork.
6. Increasing the sales of the company's product.
7. Improving blank forms.
8. Improving the health of employees.
9. Additional safety precautions to make the work less dangerous.
10. Using the cheaper tools and operations to accomplish the same results.

Complaints are also welcomed and if they lead to an improvement receive the same credit as adopted suggestions.

Method of Handling Suggestions

The method of handling suggestions offers several points of value to other concerns which contemplate the adoption of a suggestion system. Each suggestion is read, classified according to the subject with which it deals, acknowledged, and entered upon the employee's record card. It is then copied without the signature and goes to the proper person for investigation. After the investigation a definite report is made concerning its merits, and in each case the employee is notified of its adoption or rejection. If the suggestion is not adopted, the reasons are given; if adopted, the suggestion is put into effect as soon as practicable. If an employee feels that his suggestion has not received fair consideration, his complaint is handled personally by a member of the suggestion department.

Prizes for the Six Months' Suggestion Contests

The prizes given by the company fall into the following classes:

1. The best adopted suggestion or suggestions brings an award of \$100 to the employee making it.
2. The next best adopted suggestion receives \$75.
3. The next best adopted suggestion receives \$50.
4. The two employees having the next best adopted suggestions receive \$30 each.
5. The three employees having the next best adopted suggestions receive \$25 each.
6. The seven employees having the next best adopted suggestions receive \$20 each.
7. The fifty employees having the next best adopted suggestions receive \$5 each.
8. In addition to the above, \$1 is given for each adopted suggestion to those who do not win one of the larger

prizes. All the adopted suggestions submitted by an employee are considered together in awarding prizes, so that one might submit a number of minor suggestions and still win a big prize. A committee of eight decides on the value of each suggestion.

A special banner is awarded to a department on the basis of:

1. The total prize money.
2. The number of prize-winners.
3. Number of adopted suggestions.
4. Average prize money per adopted suggestions.
5. Average prize money per employee in the department.

A unique contest also arranged by this company was prepared for July 1, 1919, when \$200 in prizes were given "to the mothers, wives, sisters, and daughters of N. C. R. employees, except those employed at the factory." A total of 57 prizes was given as follows: one prize of \$25, one prize of \$20, one prize of \$15, three prizes of \$10 each, six prizes of \$5 each, ten prizes of \$3 each, fifteen prizes of \$2 each, twenty prizes of \$1 each.

These prizes were given for suggestions on "all subjects pertaining to the company's business." The following subjects were given as an aid in making such suggestions:

1. Increasing co-operation.
2. How can we promote community welfare?
3. How can we promote the school interests?
4. How can the conditions of the factory be improved?
5. How can we improve the health of our employees?
6. How can the suggestion plan and the prize distribution be improved and made more helpful and more interesting?

Other Suggestion Systems

Other industrial concerns have recognized the value of rewarding good suggestions and, like a prominent Eastern plant, set a definite sum for certain classes of suggestions. At this company all suggestions are considered by a safety and suggestion council of which the superintendent of the service department is secretary. There are four classes of suggestions as follows:

Class	Estimated to Return Net Annual Saving of	Award
I.....	\$250 or over	\$25
II.....	100-200	20
III.....	50-100	10
IV.....	25- 50	5

An annual award of \$100 is to be given in case there are at least five Class I suggestions.

An honor list posted monthly contains the names of workers whose suggestions were good in themselves but which the company could not adopt.

Another concern makes money awards only for suggestions which will increase output or effect savings. Suggestions which concern the general conditions of employment are recognized by a roll of honor posted on bulletin-boards and noted in the employees' newspaper.

The Hercules Powder Company gives annual bonuses of common stock of the company for original suggestions.

The Northern Connecticut Light and Power Company, Thompsonville, Connecticut, pays \$1 for each idea or suggestion relating to improvements in service, or changes in present methods of construction, operation, office work, or public policy, which result in the saving of time or material.

Payments are made each month for such suggestions as are adopted and put in force.

The Commonwealth Edison Company, Chicago, pays one dollar for each accepted suggestion tending to further the interests of the company in the way of improvements in service, increased safety, reduction of expenses, securing new business, and so on. Executives and their assistants are not entitled to these cash awards when their suggestions are for improvements in their own work, as such suggestions are included in the duties of their respective positions.

A Good Suggestion Well Worth Its Cost

The suggestion system may be made a thing of value to the organization. It gives an opportunity for free and helpful exchange of ideas. It keeps an organization from dying at the top. For these reasons much effort is justified to give suggestion work the scope that it should have. Time may be needed before any real results show. But the by-products will more than repay all outlay of time and effort.

CHAPTER XIX

THE EMPLOYEES' LUNCHROOM AND RESTAURANT

Importance of Food upon Labor Maintenance

The matter of proper food for industrial workers is of prime importance in any study of labor maintenance. The fitness of the worker is as much dependent upon the food he eats as upon the other factors considered in this volume. The industrial worker needs energy and that is largely a matter of food. Too often we find workers depending upon a cold lunch consisting of a sandwich or two, and something that satisfies but does not nourish; and this lunch is eaten under conditions that are unattractive to say the least. Not long ago the author visited a factory employing several hundred men and women, chiefly women. When the noon-hour whistle blew comparatively few employees left the building; few of them lived near enough to be able to go home for their lunches. But the condition which brought itself forcefully to the attention of the author was the manner in which employees had to eat their lunch. Not only did the men and women eat at their work-benches (no special room was provided for the purpose) but as no lockers were provided, the lunches were taken out of the drawers of work-benches, from window-sills, and other odd places of storage. The wages in this concern were good, the employer had always treated his employees well; but what disturbed him was the unusually large labor turnover, and the poor production records of many employees. While such records were owing, in part, to lack of systematic training of new workers, it is

fair to state that the conditions under which employees had to eat, and the lack of nourishing food, especially hot food at noon, were responsible for the poor workmanship. When the author questioned many of the employees, he found that because of this very matter they considered their stay with this particular company only temporary. The head of the concern, when made aware of this condition, immediately arranged for a room and equipment so that the women employees could heat their food. This was only a makeshift but it helped considerably in improving the spirit as well as the workmanship of employees.

In another concern employing over 3,000 men, the plant physician and the visiting nurse discovered many cases of absence and of stomach trouble were due to improper food. This food was either brought from home, and, because of the lack of a suitable place to keep it, had spoiled by noontime, or was purchased at one of the cheap shops adjacent to the plant. A cafeteria was established by the company and good, palatable food was offered at low prices. The result was a perceptible drop in the number of absences because of illness.

Findings of British War Ministry

This is the usual story. Employers are learning that it pays to provide their employees with energy-giving food even if it means a deficit in the operation of the lunchroom or cafeteria. During the war the British Ministry of Munitions made a thorough study of the question of industrial restaurants and found that among the direct benefits were:

1. Marked improvement in the health of the worker.
2. Less sickness.
3. Fewer absences and less broken time.
4. Diminished tendency to alcoholism.
5. Increased efficiency and output.

Among the indirect benefits they found:

1. Considerable time saved for the workers.
2. A salutary change from the workshop.
3. Greater contentment among the workers.
4. Better midday ventilation of workshops.
5. Increased recreational activities in spare time.

A Good Business Policy

That provision of good and varied food for workers at reasonable cost is part of sound employment policy, is the consensus of opinion of enlightened management. To make such provision even at an immediate financial loss, involves no philanthropy. No humanitarian motives are necessary. The object to be sought is maintenance of the highest efficiency of the worker. The following examples are not intended to include all concerns which have arrangements for employees but only to point out some important features in the administration of employees' restaurants.

The Pierce-Arrow Company

The Pierce-Arrow Motor Car Company provides a good dinner for its men in the belief that men who work hard need a good dinner at noon, not merely a light, cold lunch. The nominal charge made does not cover the cost. The meal consists of soup, meat, potatoes, various vegetables, such as rice, beans, or turnips, bread and butter, and tea, coffee, or milk. A man may take as much as he wishes. The menu is changed daily, an important point to be remembered.

The method employed for waiting on the men is an ingenious one. The room contains 35 tables, each table capable of seating 25 men. One waiter is assigned to each table. The waiters are workers in the plant. They leave their regular work at 11:15 A.M., and at fifteen minutes later have their

lunch—which is furnished to them free. From 12 o'clock to 12:30 they wait on the tables; and from 12:30 to 1:00 P.M., they have their noon recess. They are paid their regular wages, and no time is deducted except for the half-hour recess.

One of the best examples of restaurants for employees is found at the Curtis Publishing Company which maintains several restaurants in its building. In one reserved for women, about 1,100 take their lunch every day. In another, about 1,000 men are served daily. Altogether about 75 per cent of the employees make use of the facilities here offered. The cost per meal to employees is very low and the company makes up the deficit.

The National Cash Register Company's Lunchroom

Of the employees of the National Cash Register Company, about 5,000 live sufficiently close to the factory to go home to lunch; some bring their lunches, or eat at a boarding-house near the factory.

But for those who cannot, or do not want to do any of these things the company operates three distinct lunchrooms:

1. An officers' club dining-room where about 150 heads of departments, supervisors, foremen, assistant foremen, and others in responsible positions take their noonday meal. The dues are \$10 a month for twenty meals.
2. An employees' dining-hall for the rank and file. About 1,500 men eat here daily. The charge is 30 cents a meal.
3. A girls' dining-room accommodating about 500. The charge for each meal is 15 cents.

The lunchrooms of this company have never been operated with the idea that they would pay financially. In fact, the

company operates at a loss because its prices to employees do not conform to the cost of foodstuffs and labor. The average loss for the first five months of this year for all three of the lunchrooms, including the loss on foodstuffs, cost of preparation, serving, equipment, and incidental costs is \$3,704.97 a month. The commissary department chart (Figure 25) outlines the history, organization, equipment, and results of the National Cash Register Company's department.

Commonwealth Steel Company's Plan

Officials of the Commonwealth Steel Company believe heartily in the value of wholesome food for their men and so serve food to their employees at cost. The restaurant of the company is used by men from all parts of the plant, who are thus brought into closer relationship than otherwise. An atmosphere of cheerfulness and friendship pervades it.

In addition to the poontime lunch, meals are served in the morning, at night, and at midnight. According to the monthly figures, the average cost to employees has been as low as 17 cents a meal; but the present figure is higher. About 1,200 meals are served daily. The cafeteria method is used. A Victrola, and occasionally the employees' band, provide music during the noon-hour. Not only is the restaurant used for regular meals but the banquets of the employees' Fellowship Club are held there.

For those who bring their lunches from home the company provides a special lunchroom where the same type of equipment in the way of tables, etc., is provided, as exists in the main dining-room which adjoins it.

Further Lunchroom Plans

The National Lamp Association of the General Electric Company has a standard cafeteria service in each of the plants of the several divisions, and provides substantial lunches to

Commissary Department				
Object: To promote employees' efficiency by serving wholesome lunches at cost of food and service.				
How Department Started	N. C. R. Dining Rooms Today	N. C. R. Kitchens	N. C. R. Gardens	Results
<p>In the early days of the Company, trouble was experienced with the completed product. Thousands of dollars' worth of cash registers were returned due to defects in construction. An analysis of the trouble showed:</p> <p>1. That poor work was the result of poor working conditions, and,</p> <p>2. Eating cold lunches at the work bench lessened the efficiency of the employees.</p> <p>Working conditions were at once improved. The Company ordered hot soup served to all women employees.</p> <p>In 1896, a dining room was opened on the third floor of Bldg. No. 1, where a lunch consisting of two hot dishes and a hot drink was served. This cost each girl five cents per week. Each girl brought her own bread and butter from home.</p> <p>October 1, 1903, a new dining room was opened for the men of the office departments and the assistant heads and clerks of the Factory. The following was an average menu:</p> <p>Bean soup Roast beef Mashed potatoes Bread and butter Baked apples Coffee or milk</p> <p>The charge was 50c per week to employees earning \$12.50 or less; 75c to those earning more.</p> <p>June 20, 1905, Welfare Hall, a new dining room for N. C. R. men and women, was dedicated. This hall accommodated 2,000 persons at one time.</p>	<p>Located on the tenth floor of the Office Bldg. are two dining rooms:</p> <p>1. Officers' Club Dining Room: 150 Supervisors, department heads and assistants take their daily luncheon here at a price of 50c. In addition distinguished visitors are entertained here as guests of the Company.</p> <p>2. Girls' Dining Room: An average of 600 girls are served warm luncheons daily at 15c each. In addition, a cafeteria service is conducted, and a charge of 3c made for each dish.</p> <p>Men's Dining Room: The Dining Room has a seating capacity of 1,350. Hot lunches are served at less than cost price—30c. This dining room is a modern cafeteria and 100 men can be served per minute.</p> <p>Dinners are served from Monday to Friday inclusive.</p> <p>Box lunches are served to men in those departments in which the men, because of the nature of their work, cannot conveniently patronize the dining room.</p> <p>Lunches are packed in paraffined, paper-lined boxes, coffee or soup in bottles and placed on hot plates in closed trucks and delivered to the men at cost.</p> <p>Night lunches are served to overtime workers at less than cost, and gratis to straight time employees.</p>	<p>Kitchen No. 10 (Officers' Club and Girls' Dining Rooms). Employees—7 men, 12 women.</p> <p>Kitchen No. 18 (Men's Dining Room). Employees—11 men, 17 women.</p> <p>Equipment for both kitchens: Electric dish washing machines. Electric scrubbing machines. Electric bread and meat cutters. Steam kettles: 4 100-gallon steam kettles. 3 60-gallon steam kettles. 1 40-gallon steam kettle. 5 Vegetable steamers, 9-bushel capacity. 2 Electric potato peelers, 1-bushel capacity. Gas ranges. Cold storage plants. Brine system Ice Cream Freezer, 10-gallon capacity. Meat broilers. Baker shop: Gas or coke oven, capacity 250 loaves. 1 2-barrel dough mixer. 1 pastry mixer. Bakes all bread, rolls, cakes, pies, and makes all ice cream for the three dining rooms.</p> <p>Waitresses: 35 girls employed in the factory departments serve as waitresses in the Girls' Dining Room. Waiters: 23 men from the Plant Inspection Department serve as waiters in the Officers' Club Dining Room. These men shave, bathe, and manicure their nails before serving. Clean suits are furnished each day.</p>	<p>Supply a considerable part of the garden truck used in the Commissary Department.</p> <p>Number of employees, 5. 40 acres of ground. Overhead sprinkler system.</p> <p>Produce raised in 1918: Potatoes, 2,000 bushels. Tomatoes, 1,500 bushels. Cabbage, 2,000 barrels. Beets 300 bushels. Turnips .. 300 bushels. Lettuce .. 8 tons. Carrots .. 250 bushels. Celery .. 40,000 stalks. Sweet Corn, 7,000 ears. Asparagus .. 3 tons. English Marrow, 3,000. Pumpkins 3,000. Spinach .. 200 barrels. Radishes .. 75 bushels. Onions .. 400 bushels.</p> <p>Mangoes, rhubarb, plant, pickles, chervil, parsley, dill, sweet marjory.</p> <p>Value of produce raised in 1918, \$25,000.</p> <p>Approximate net profit from gardens, \$20,000.</p>	<p>Has promoted the well-being of the employees by providing simple, wholesome food. This has resulted in:</p> <p>1. Better health. 2. Increased efficiency. 3. Improved product. 4. Increased production.</p> <p>Statistics for 1918</p> <p>Number of meals served in:</p> <p>Officers' Club Dining Room, 34,589 Guests 2,447 Girls' Dining Room 122,601 Men's Dining Room 274,654</p> <p>Meals served to help, orchestra, overtime workers, etc., for which no charge was made 97,589</p> <p>Special lunches, lunches for children, banquets, etc. 26,940</p> <p>Grand total 558,820</p>

Figure 25. Commissary Department Chart

Showing the history, organization, equipment, and results of National Cash Register Company's Department.

male and female employees. The average cost per person is much less than that of the same amount and variety of wholesome, well-cooked food at home or at any outside restaurant.

At the Jeffrey Manufacturing Company about 800 persons are served daily; there are two complete lunchroom units. The bread, pies, and pastry are baked in the employees' bakery.

The Joseph and Feiss Company, Cleveland, has separate lunchrooms for men and for women. Many employees bring their own lunches and supplement them by soup, coffee, or fruit furnished at actual cost. Special box-lunches consisting of two sandwiches, a relish, pie, and fruit, are served at a nominal sum. Each table has someone in charge to help promote sociability and see that new employees are introduced and made at home.

At the United Shoe Machinery Company of Beverly, Massachusetts, good food at reasonable prices is served in a large restaurant. The vegetables are grown in the company gardens. For those who bring their own lunches facilities are provided for heating the food as well as rooms in which to eat it.

The women employees in the office of the Southern Flour Mill are encouraged to learn housekeeping while they prepare their noonday meal in a well-furnished kitchen in the office building. They work in squads, taking turns at setting and clearing the tables, cooking, and serving the meals.

The Hamilton Watch Company at Lancaster, Pennsylvania, maintains lunchrooms where coffee, or tea, with cream and sugar, is furnished free at the noon-hour.

The Westinghouse Electric and Manufacturing Company also distributes free coffee to its female employees in their lunchrooms.

The Cleveland Worsted Mills Company serves soup, coffee, milk, sandwiches, pastry, fruit, and ice-cream to between five hundred and six hundred employees daily. The dining-room

has a seating capacity of 656 and is used by about half of the office and factory employees.

At Joseph Bancroft and Sons Company, Wilmington, Delaware, a regular dining-room is provided in the building set aside for employees. The price of the noon meal is 20 cents for men and 15 cents for women. Meals are served by waitresses. The room is plain but attractive, the walls are painted, and the ceiling is of standard mill construction. Special tables are provided in another room for those who bring their own lunches.

The cafeteria of the Ohio Malleable Steel Company, Columbus, Ohio, is one of the best in the country.

The Cadillac Motor Car Company operates the restaurant in two sections on the cafeteria plan. In one section food is served in portions at 3 4/7 cents each (7 tickets for 25 cents). In the other section the price of each portion is 5 cents.¹

Percentage of Employees Using Restaurant

While employees' lunchrooms may be conducted in plants of any size, it is hardly practicable to operate a restaurant where the number of employees is less than 200. The general experience throughout the country in plants of all sizes, is

¹ Among other concerns which provide special lunchrooms and cafeterias for workers, may be mentioned: Bauer and Black, Chicago, Ill.; Wisconsin Steel Company, Chicago, Ill.; Detroit Telephone Company, Detroit, Mich.; Premier-Motor Company, Indianapolis, Ind.; Postum Cereal Company, Battle Creek, Mich.; Parke, Davis Company, Detroit, Mich.; Air Nitrates Corporation, Ancor, Ohio; Holeproof Hosiery Company, Milwaukee, Wis.; Standard Steel Car Company, Hammond, Ind.; Continental Can Company, Clearing, Ill.; American Sheet and Tin Plate Company, Pittsburgh, Pa.; Cudahy Packing Company, Chicago, Ill.; Kellogg Toasted Corn Flake Company, Battle Creek, Mich.; Link Belt Company, Chicago, Ill.; Bemis Bag Company, St. Louis, Mo.; Duesenberg Motors Corporation, Elizabeth, N. J.; National Malleable Company, Toledo, Ohio; Reliance Manufacturing Company, Reliance, Ohio; Champion Ignition Company, Flint, Mich.; American Radiator Company, Bremen, Ind.; Linderman Steel and Machine Company, Muskegon, Mich.; Hydraulic Pressed Steel Company, Cleveland, Ohio; Armour and Company, Omaha, Nebr.; Prudden Wheel Company, Lansing, Mich.; Larkin Company, Chicago, Ill.; Wayne Company, Farlet, Ohio; Pensacola Shipbuilding Company, Pensacola, Fla.; Illinois Steel Company, South Chicago, Ill.; Burroughs Adding Machine Company, Chicago, Ill.; Union Switch and Signal Company, Swissvale, Pa.; Reo Motor Company, Lansing, Mich.; American International Shipbuilding Company, Hog Island, Pa.; Submarine Boat Company, Newark, N. J.; Merchant Shipbuilding Corporation, Harriman, Pa.

that only from 33 to 40 per cent of the total number employed will take advantage of plant restaurants. In some concerns it is even as small as 25 per cent.

Cost and Selling Prices

It is difficult to estimate the cost of fitting up a restaurant for there are several classes of equipment which vary widely in price. It is not advisable for an industrial concern to install a plant restaurant if it expects to operate without a loss, or to show a small profit; because foods, as a rule, are sold for a much lower price than in public restaurants and much larger portions are given. The cost of food is about 60 per cent of the selling price, and the overhead expenses including labor are about 30 per cent. This leaves a margin of 10 per cent to be used as a rolling fund to overcome the fluctuation in the cost of merchandise and operating expense, for it is hardly possible to purchase all materials for the same price at all seasons of the year.

The great difficulty in the operation of plant restaurants is the question of the prices of foods. If the restaurant (in order to keep up with the advancing rates of foodstuffs) raises its prices, the employee begins to feel that the restaurant is being run at a profit. Because of this attitude of the worker a number of plants are selling food at the same price they did a few years ago, although it means a considerable financial loss; indeed, in some places, the loss is as high as \$1,000 a week. This loss is charged off to the service department, if there is one, or to the general employees' service work.

Farming Out Restaurant Privileges

Some firms make arrangements with outside caterers to furnish food and manage the restaurant; but this practice should be discouraged. It has many attendant evils. In the first place if the restaurant is conducted on a profit-making

basis, the price for food must be high or the quality of food must suffer. Further, the caterer does not have the personal interest in the employees which the company itself would have. The author knows of several plants which have had disastrous experiences with profit-making purveyors of food. In one case a serious strike was threatened by employees who, because of the location of the plant, had to depend for their noonday meal upon the employees' restaurant where the poor quality of food poisoned several and made many more ill. An employees' restaurant should never be conducted for profit. This is fundamental to the success of the enterprise.

A recent report of the Emergency Fleet Corporation on organization of restaurants has this to say of the evils of farming out restaurant privileges:

There is almost always grave danger of profiteering at the expense of the workmen and indirectly at the expense of the employer also. There probably are a few exceptions to this rule, but experience here and abroad indicates that the company should almost invariably itself appoint and directly control the restaurant manager, if the best results are to be obtained at the lowest cost to the men. In any arrangement whereby the manager gets a definite percentage of profit over and above all expense, a temptation is offered to an unscrupulous manager to increase rather than decrease the outlays for food, service, etc.

Method of Service—Cafeteria or Serving Counter

The number of employees necessary for the preparation and dispensing of food in an industrial canteen, operated on the cafeteria plan, should not much exceed 30 for every 1,000 persons served at one sitting. The proportion will, of course, vary with the size of the cafeteria, proportionately more employees being necessary in the smaller canteens. If special waiter service is desirable or necessary for a considerable force of administration and clerical employees, superin-

tendents, foremen, etc., then the canteen staff will require to be correspondingly enlarged. In most cases the cafeteria or self-service plan should be adaptable to practically all the employees of the plant. A separate serving-counter and dining-room for the officials and clerical staff in the larger plants may prove of advantage. An extra charge should be made for meals where the method of service is more expensive, even though the food served is exactly the same in quantity and quality as that supplied to the men in the main dining-rooms and mess-halls.

Essential Requirements of a Successful Restaurant

The best experience recommends the desirability of workers eating their lunches under the most attractive conditions possible—away from the work-bench. The successful lunchroom is clean, well-lighted, well-ventilated, and equipped with furniture that can be kept in sanitary condition easily.

Commenting on the essential requirements of a successful workers' restaurant, the report of The Emergency Fleet Corporation makes the following summary:

Convenient location. The restaurant must be convenient to the workmen.

Attractiveness. It must be attractive, light, airy, well-spaced, and with plain but neat, clean, and attractive equipment.

Prompt service. Service must be prompt. Slow service is certain to make the work's restaurant a failure.

Hours. The restaurant should be open at all hours when there are night shifts. Coffee, tea, cocoa, and milk should be obtainable at any time.

Food. The food served should be of first-class quality—fresh, properly prepared and cooked, appetizing, and of good variety.

Prices. The price of the food to the workmen should be so low as merely to cover cost, or at most to provide

only a small margin above cost. The price of any given meal or articles of food should be prominently displayed. This is essential for prompt and satisfactory service.

Payment for food. The method of payment for meals should be simple, preferably by ticket or check with the meal and payment of cash to cashier on exit. Tickets purchased in advance save the workmen from carrying much change in work clothes.

Management. First and last the success or failure of the works restaurant is dependent upon the manager.

A further point to be emphasized here is the importance of having a committee of employees elected from the body of workers—including representatives of the office workers' force—to act as an advisory committee to the management on problems affecting the success of the restaurant. Suggestions for the improvement of the restaurant service, the nature of the menus offered, the care of restaurant property, the use of the restaurant for special occasions, and other related matters should come under the jurisdiction of this committee. Some concerns allow meals without charge to members of this committee in return for their service on the committee. Such a committee can do much in establishing and maintaining the right relations between workers and the restaurant. In one concern known to the author, where 3,000 are employed, the entire management of the restaurant, including its finances, is in the hands of the employees and has been for several years. The employees have hired an experienced manager for the work and he does all the buying, supervises the cooking, and attends to the other details of administration subject to the direct control of the employees through a special committee which reports to the association of employees.

Equipment

Experience has indicated that the cafeteria method is the most convenient, economical, and efficient mode of operation.

It enables a firm to give quick service to large numbers at a low overhead cost. By far the greatest number of industrial concerns use this form of service. Suitable tables are provided throughout the room so that employees, after securing the food they desire, can eat in comfort.

It has been found by corporations which have experimented with various types of lunchrooms for employees that even where a regular restaurant would fail to meet its expense, the cafeteria generally would come out ahead. And what is most important is that the cafeteria seems to be the most popular form of arrangement with employees. A single counter has an approximate capacity of from 200 to 300 persons every 30 minutes, depending upon the skill of those who serve the food. Then again it enables a display of food so that as the worker passes along the counter he can choose what he wants with little delay.

The kind of tables found most satisfactory are those with white glass tops, for they look and wear well and are easy to keep clean. Some concerns use tables with enameled metal tops but these are apt to become chipped and unsightly as well as unsanitary. As for seating arrangements, individual chairs are best. All counters should be raised about 6 inches above the floor to allow good ventilation and easy cleaning. The walls of the room should be painted with waterproof oil paint of a light color; this will allow frequent washing. The floor that has proved best is concrete or a composition.

Modern equipment for the kitchen includes a refrigerator with several compartments for separate storage of meat, dairy products, and vegetables. Another valuable piece of equipment is an electrically driven ice-machine placed in the refrigerator, controlled by a thermostat which starts and stops the machine automatically. Electrically driven meat-choppers and grinders, dough-mixers, and dish-washers, are also parts of a well-equipped cafeteria or restaurant. These suggestions

of course apply particularly to concerns where a fairly large number use the lunchroom.

Gas-ranges, accessible from both sides, and from which rubber-tired trucks carry the food to the serving counters are recommended as indispensable.

The British Ministry of Munitions, which studied the problem of feeding large numbers in munition factories, makes the recommendation that the serving counter should be placed in front of the kitchen and in the center of the dining-room. They also suggest that the serving counters should be arranged transversely to the long side of the building in order to allow more space for the waiting lines of workers and to reduce the number of help necessary inside the serving counter. The service counters should be provided with plenty of steam-tables, with dish-warmers so grouped as to make for quick service. Trays and silver to be replenished through windows in the walls of the kitchen are another suggestion.

Kind and Quality of Food

This is a matter depending mainly upon the locality of the plant. Tastes in different parts of the country vary a great deal. It is therefore well to select a manager who has had some experience with the local markets and food preferences of the locality.

One large contracting organization makes it a point to have special cooks for the various nationalities represented in large numbers by the labor employed. For example, the Italians have their own cook and the kind of food they are accustomed to in a home. This has helped considerably in keeping up the good spirit of the men.

Effective Menus

A neglected point, however, is the provision of well-balanced meals that are energy-producing. Too little atten-

tion is generally given to the needs of the workers in the way of food, and too much to their desires. Of course, no worker wants to be told that his food habits are wrong, or that this or the other sort of food is unwholesome; he is guided largely by his tastes. A wise restaurant management will make up its menus with reference to such tastes; but it will

Article of Food	Quantity Required to Yield One-tenth of Total Fuel Value Needed by Worker a Day Ounces	Amount of Protein Contained in Each Quantity of Food Ounce	Article of Food	Quantity Required to Yield One-tenth of Total Fuel Value Needed by Worker a Day Ounces	Amount of Protein Contained in Each Quantity of Food Ounce
Margarine.....	1½		Barley flour.....	3	½
Bacon.....	2		Maize meal.....	3	½
Pork.....	3		Bread.....	4	½
Cheese.....	3		Meat (free from bone).....	5	½
Oatmeal.....	3		Syrup, jam, marmalade.....	5	½
Sugar.....	3		Milk.....	16*	½
Split peas or beans..	3		Eggs.....	4†	1
Lentils.....	3		Potatoes (20% allowed for waste)..	17	½
Rice.....	3				
Flour.....	3				

* Fluid ounce.

† Number of eggs.

Figure 26. Table of Food Values

Showing the quantity of food required to furnish one-tenth of the fuel value needed by a worker doing moderately heavy work, and the amount of protein contained in each quantity of food.

at the same time offer energy-producing foods in attractive form and at attractive prices.

In some plants the meals are planned scientifically, and the co-operation of the plant nurse is secured to get workers to order the food they need. For workers whose occupation is more or less sedentary, and who suffer from headaches owing to poor elimination, efforts have been made to get them to eat a good deal of fruit. In order to bring this about, the fruit was arranged very attractively on the counters. At the same time, small signs were arranged about the room dwelling on the wholesomeness of plenty of fruit in one's diet.

The familiar slogan, "An apple a day keeps the doctor away," has been really effective.

Changing one's food habits is a matter of slow education; but it can be accomplished as experience in this country and abroad has shown. In the United States some study is being made to determine the combination of food best suited to the needs of the industrial worker.² In England, during the war, special study was made of food standards for munition workers and others; and the following table, prepared by the Health of Munition Workers' Committee, is significant. A standard of 3,500 calories was taken as required daily by a male munition worker. The table (Figure 26) below shows the quantity of food required to furnish one-tenth of the fuel value required by a worker doing moderately heavy work and the amount of protein contained in each quantity of food. The daily diet should contain at least 4 ounces of protein.

² See "Food for the Worker," Frances Stern and Gertrude T. Spitz.

CHAPTER XX

THE PLANT NEWSPAPER OR MAGAZINE

A Medium of Intercommunication

The growth in size of industrial enterprises, the amount of business done, and the high specialization necessary to administer it efficiently, have considerably weakened if not destroyed, the old personal relationship between the management and the workers. Labor stability depends largely upon how close to the men the management is. One does not have to seek far for examples of conditions resulting from neglect of this truth.

The question is how to restore the personal relationship in industry as far as it is practicable to do so under present conditions. Present organizations in which large numbers are involved function largely through executives to whom the heads of the concern delegate authority and responsibility. Those executives in turn must of necessity delegate some of their power to subordinates. Intercommunication of a personal sort is difficult and workers know little of what is going on in departments other than those in which they work, except through an occasional formal bulletin or notice, or through rumor.

Following the plan of a concern with a progressive sales policy, which keeps its sales force informed as to each other's activities, policies, and plans, through a house organ issued at regular intervals, many employers have established plant newspapers or magazines as a desirable method of intercommunication among employees. The war, which intensified the need of closer co-operation among workers, led to the estab-

lishment of many more plant journals. The results have been most valuable, both to the individual and to the plant as a whole.

Means of Stimulating Production

During the war the American Multigraph Company was under the pressure of producing time-fuses in quantity for the United States and its allies. One of its serious problems was that of bridging the gap between the workers and executives—including the foremen—and creating a common interest that would stimulate production. To develop the “family spirit” a plant publication, the *Center Punch*, was launched “to quicken the spirit of competition into life, to feature and distinguish those who did good work, and to lead the employees in the proper direction but to do it unofficially.” The management held that “official orders are all right up to a certain point, but past that point much better results can be secured by making the suggestions come from the employees themselves.”

Everything in the magazine was planned from the inspirational point of view. The editors assert that when the Roll of Honor or Production Record was published, for the first month the record of production was just average, but in the next month production exceeded the estimated increase by 10 per cent. “As there was no other force working along the lines of greatest production, the magazine was naturally credited with the result.” We are informed that the magazine is regarded by the company as “the big factor in creating a shoulder-to-shoulder spirit and in making the company more than merely the name of an employer to those who are employed.”

One of the devices used, by the way, was to assign subjects to various foremen with the request that they write out their ideas without worrying about style or language. It took a

little time before that plan got to working but finally success was attained.

Giving Personality to the Concern

The plant newspaper gives personality to the concern as a trade-mark does for the product it represents. There is hardly a better aid to the development and maintenance of an esprit de corps. Where properly established the employees' paper has more than paid for itself. It promotes enthusiasm and gives opportunity for self-expression without which all attempts at better industrial relations are bound to fail. It develops the interest of employees in one another, and in the company and the company's product. It generates constructive ideas. It makes employment more attractive.

Elements of a Successful Paper

The successful plant newspaper seeks to represent the interests of all workers in the plant, from the chief executive to the laborer. It contrives to reach every group and individual on the basis of participation in the enterprise and through representation on the editorial staff. Just criticism has come from workers in certain plants which publish employees' newspapers, that the contents of each issue are too much concerned with the affairs of the office workers and too little with the rank and file. The successful magazine is an expression "of the workers, for the workers, and by the workers."

From the outset, it should be the basic policy of the paper to be newsy, never didactic, and always constructive. Items must be terse and full of "punch." Every line should breathe enthusiasm and action. Rarely should articles be allowed to exceed 500 words in length. Its language should be simple and direct. The strength of a writer lies in his use of simple English.

The Paper's "Make-up"

The "make-up" is highly important. If the paper is cluttered up with a miscellaneous assortment of type, crowded with ill-arranged ideas, hard to read, little may be expected of it. The "make-up" must attract interest, and "sell" itself to every person who picks up the paper. The secret of that lies in the proper selection of type, and in an attractive arrangement which brings out the most important items. In their effort to make their paper attractive many plants give each issue of their magazine a special cover, usually with some appropriate design. One plant during the war employed a prominent artist to make the cover each month. But special covers are expensive and not absolutely necessary. The paper can be so printed that the front page gives the appearance of a cover, as is frequently done in the weekly magazines which appear on news-stands. Good examples of employees' magazines which use this device are the *News-Compass*,¹ *Speed-Up*, the Larkin Company's *Ourselves*, and the *Packard Employees' Paper*.

In attracting interest, photographs of individuals and events are of great assistance. In order to give "punch" to such photographs the policy should be to give preference to those showing workers in action rather than in a posed group; but of course this will depend upon the purpose of each photograph. As half-tone "cuts" are somewhat expensive, it would be well for the business manager of the plant newspaper to decide on a standard size of cut, or if possible, upon two or three standard sizes, and arrange with the engraving company for a contract to cover a certain period and so secure a reduction in the cost for each cut. If this is done, the editors will have to determine upon the number of cuts to be used in each issue and to plan their "dummy" accordingly.

Cartoons of workers and of employee activities give life

¹ Recently discontinued.

to a plant newspaper. Where draftsmen are employed it generally is not difficult to locate a worker who can sketch and possibly has a sense of humor. Some plants make it a practice to allow their artist to work on material for the plant newspaper on company time, setting aside for the purpose a maximum number of hours per week or month.

The News Element

The real backbone of a successful plant paper consists of the personal items about workers, and the more of these there are, the closer will the paper get to the employees. Excellent models in this respect are: the *Commonwealth* of the Commonwealth Steel Company; the *Western Electric News*; *Telephone Topics* of the New England Telephone Company; the *Telephone Review* of the New York Telephone Company; the *News-Compass* of the Merchant Shipbuilding Corporation; the *Dry Dock Dial* of the Morse Dry Dock and Repair Company; the *Chameleon* of the Sherwin-Williams Company, the *White Book* of the White Motor Company, Cleveland, the *R & M Co-operator* of the Robbins and Myers Company, and the *Lamp* of the Standard Oil Company of New Jersey.

Editors of employee magazines must, however, make sure that every "personal" is without a "sting" and does not offend. Often unnecessary bitterness results from "slams" which are tactless. In order to avoid this the editors of one paper head their page thus: "This column will print anything of clean personal news obtainable. Therefore: Contribute everything; do not offend anybody; write everything in good fun."

Several papers make it their policy to give biographical sketches of prominent persons in the company. Others add special biographies of workers who have been with the concern for several years. That this is very effective is borne out by the experience of the Greenfield Tap and Die Corporation in devoting part of each issue of their paper to this purpose.

At the head of the column in which the biography appears is the following statement by the president of the company: "These men are our Old Guard. They are the backbone of our industry."

In making up the contents of each issue the problem is to secure the material that will interest every reader. Sometimes good matter will be found in other magazines and other sources which may be reprinted, provided it is terse and appropriate. But the editors should constantly bear in mind that the workers are primarily interested in their own affairs and not in generalities. Lazy editors use many "fillers" consisting of poems of limited interest and value, and other irrelevant items. Then they wonder why their paper is not reaching the worker and receiving his support. There are plenty of general magazines and journals and it is a mistake to try to compete with them or enter their field.

An employees' paper without a sense of humor, like a man similarly limited, will find the road to success rather difficult. The essential quality of a good plant newspaper is that it is a good "mixer." A touch of humor should lighten its pages and the wise editor will make judicious use of good jokes or witty paragraphs in each number. Short, pithy sentences or adages which are not too familiar are useful, not only to fill in the odd corners and spaces but to lend variety to the reading matter. The best plan is to set up in type a sufficient number of these "fillers," which may also include bits of humor, and use them as a reservoir to draw from as occasion requires. This is a great time-saver. For quotations, a very good book for the editor is Douglas' "Forty Thousand Quotations, Prose and Poetical." Here again, however, the editor must use good judgment both as to quality and quantity. A quotation, for the purposes of an employees' paper, must be inspiring; it must stimulate thought and action. Hoary proverbs and didactic selections have no place.

Date of Issue—Distribution

One of the important things for the editors to remember is that the paper must be issued promptly on the day set for its distribution. This day should rarely be changed. When employees know the date of issue they look forward to it. Friday or Saturday has been found satisfactory. Moreover, the distribution should be carefully arranged so that every employee receives his copy promptly. Some firms distribute their papers through the foremen or department heads, others through the timekeepers at noon or at the end of the day. A good plan is to have the members of the reportorial staff distribute the copies in the shop which they represent; but no distribution should be made during working hours, except at the lunch period.

Special Features

In order to arouse special interest in each number it has been found desirable to place posters around the plant announcing special features of each forthcoming issue. As the special features make each issue stand out, the author strongly believes in this method of reaching employees. It is a good plan to feature the various departments of the plant one by one in special issues, making sure, of course, that in those issues there is plenty of news about the other departments. This method was tried with great success with the *Chester Compass* (afterwards the *News-Compass*).

The special "foremen's number" of this paper, to which foremen and leading men contributed, made a deep impression. It dealt with such topics as "The Relation of the Foreman to the Worker," "The New Foremanship," "Keeping the Men on the Job," "The Influence of the Foremen in Speeding Production," "Constructive Foremanship," "Qualifications of a Foreman," "Unity Among Foremen," "Books for Foremen." Not only were the foremen interested in exchanging their

views in this way for the first time, but the workers eagerly read the issue to learn the foreman's viewpoint. It gave the workers the opportunity to understand and appreciate the foremen's position more thoroughly; it cleared up many misconceptions which probably would never have been threshed out otherwise. Another point not to be overlooked was the effect this number had upon the management in enabling them to get the foremen's conception of their jobs. That number, finally, gave the foremen an interest in the success of the paper. They felt that it was as much a mouthpiece for them as for the rank and file, and they became great boosters for it. The effect on the spirit of the plant was noteworthy.

Besides featuring the various departments, the plan has been tried successfully of giving certain numbers a special name: a "Christmas number," a "New Year's number," a "Labor Day number," a "Lincoln number," and so on, in each of which something appropriate to the day is dwelt upon editorially. Several concerns produce an "Anniversary number" which reviews the work of the paper and of the concern for the year previous in statements from the executives. In some cases particular issues are dedicated to various individuals or events.

A Few Successful Plant Papers

Among firms which have had success with plant papers may be mentioned the Goodyear Tire and Rubber Company, which in 1912 established a factory newspaper, called the *Wingfoot Clan*. At first it was published semimonthly; later, once a week, now it appears three times a week. The paper is in part an official bulletin, in part it deals with the work of the plant, and in part is simply a newspaper to afford relaxation and amusement to its readers. As the official means of contact between management and men, in which all

company policies find expression, it has been instrumental in promoting good feeling and establishing an esprit de corps.

The *Kodak Park Bulletin*, published monthly by the Eastman Kodak Company, is 'a beautifully printed employees' magazine, which may well serve as a model for other papers. In this class are the *Hydraulic Press* (Hydraulic Pressed Steel Company, Cleveland) and *Moonbeams* (Procter and Gamble Company, Cincinnati).

Of a different type is the *Fisk Bulletin*, a weekly newspaper published by the Social and Athletic Association of the Fisk Rubber Company, Chicopee Falls, Massachusetts. In addition to its editor, there are department correspondents and a long list of reporters. A feature of this paper is the special matter printed in Russian, Polish, and Greek for the benefit of foreign-born workers of these nationalities.

During the war the Edison Storage Battery Company, West Orange, New Jersey, distributed special one-page bulletins to their employees every Monday and Thursday to help them appreciate the production problems of the company and to stimulate interest in their work. The illustrations for the bulletins were generally made from advertising plates used in the company's regular publicity work in trade papers and magazines, thus minimizing the expenses.

A similar plan was adopted by the Hercules Powder Company; but the bulletins were multigraphed to make them look more personal.

The Editorial Staff and Its Work

The editorial staff should properly represent every department and with the exception of the editor-in-chief, should be elected by the workers. Unfortunately this is not the general practice. Some papers are conducted by the advertising manager, some by the secretary of the corporation or some other company official. Usually the service department helps

organize the paper and is responsible for its success. At the National Cash Register Company, the *N. C. R. News* is edited by five employees. The composition, presswork, and other details of publication, except the making of half-tone cuts, is done at the plant by employees. Each department has its correspondent who collects general articles and news items. Some papers, in addition to a staff of editors, have a reportorial staff composed of employees appointed for each shop or department to hold office for three months or more. A good heading which suggests itself for a reportorial staff is, "Every worker in the plant."

As a suggestion for a good editorial organization, the following is offered, though it will have to be modified to suit the particular conditions of an enterprise:

Editor-in-chief: (superintendent service department).

Three assistant editors representing office force, management, plant workers.

Staff

Business manager
Advertising manager
Staff artist
Assistants

Reportorial Staff

One representative from each shop.
One representative from each department other than the shops.

The terms of office of editors would vary according to the circumstances of the particular case. Where possible the staff of editors should be changed from time to time (but not too often) in order to encourage others to serve and so have the interest and control of the paper wide-spread.

The editor and the business manager should be members

of the service department, inasmuch as their work will require a considerable part of their time, and is so intimately connected with the other activities of the department.

Functions of the Editor

The functions of the editor-in-chief may be summarized as follows:

1. General supervision of the organization and publication of the papers.
2. Editorial revision of material to be published to make sure it conforms to the policies set by the editorial board and the general policies of the company, and is couched in language which will be easily understood by everyone.
3. Planning the contents of each issue and arranging the material in the form best calculated to attract and hold the interest of readers, stimulate their enthusiasm, develop constructive self-expression among the working force, and bring all interests in the plant together on a common basis of co-operation.

The editor should be particularly careful about the headings of each article. The effectiveness of many good articles in plant papers is destroyed by poor headings. For example, an especially good article on safety will be labeled "Safety News" or "Safety Notes" when it should have a title which catches the interest of readers. It would be much more effective to head the article "Play Safe," or "Why Bill Jones Lost His Foot," or "Careless Men! Don't Read this!" And so with articles on health—it is far better to say "Here's to Your Health!" or "The Doctor Says," than to dub an article "Health News." In writing head-lines, effort should be made to have

them concise, and describing action. Such head-lines give "pep" to a paper.

It is particularly important to observe this suggestion in the case of news from various departments. Instead of having headings, such as "Blacksmith Shop," "Joiner Shop," "Electrical Shop," and so on, interest will be aroused and the paper will be made more live by headings like "Sparks from the Anvil," "Joiner-shop Shavings," "Flashes from the Electrical Shop." A little thought on the part of the editor and his associates will suggest the right kind of caption.

Editorial Conferences

These matters and others vital to the success of the paper should be discussed at regular editorial conferences. No paper is making the best of its opportunities if it has no definite program and is more or less an affair of the moment. During these conferences the editors should, if possible, go over the material submitted for publication and should lay down the policies and plans of the paper for the six months, or if it is feasible, for the year following. Every issue for six months at least should be planned ahead. Each issue should have certain timely features, the material for which can be secured fairly long in advance. Current news, of course, cannot be secured in this way, but it will simplify the work of the editors considerably if they adopt a policy which plans to cover certain points within the year.

A chart should be made with a column for each month. In each column the editors should jot down the special items to be arranged for. For instance, special articles on health are to be obtained for the issues of July, August, and December (assuming that the magazine is issued monthly). Since the greatest number of accidents happen in June, we will say, special articles on safety should be planned for the issues of April, May, June, and July. The plan may be adopted of

devoting part of each issue to featuring a particular department and giving the issue a special name. These things will be noted in the appropriate column and certain individuals designated for preparation of the material, and so on.

Functions of the Business Manager

The job of the business manager is to attend to the details of printing, distribution, and financing the paper. He should follow the printer up to see that the paper comes out on time. This will be facilitated by arranging with the printer for all material for a particular issue to be in the latter's hands not later than a certain time before publication. This date should be made known to all readers, possibly through a note on the editorial page. Distribution should be carefully planned. A limited list of other plant papers for exchange should be part of the distribution scheme. The management will probably want a certain number of copies of each issue to send out.

Financing the Paper

Finances are best administered by the preparation of a budget for the year with allotments of expense for each month. This can be arranged by conference between the editors and the general manager or other representatives of the management who have authority.

Companies usually make a definite appropriation for the publication of a plant paper or set a limit to expenditures. The expense will depend upon the size of the magazine, the circulation, and upon how often it is usually issued. It is safer to begin the paper on a fairly conservative basis and expand as time goes on, to begin, for example, with a monthly issue of 8 pages and gradually build it up to 16 pages or more. Some concerns have a weekly paper of 4 or 8 pages; others produce theirs twice a month; but the regular monthly

issue seems to be the most popular. The *Center Punch* is made up in a size to fit the pocket conveniently.

Usually no charge is made to employees for the paper, but a nominal price is sometimes charged to those outside the employ of the company. This, however, is hardly advisable, as the income from this source is too insignificant to make it worth the effort.

The Question of Advertising

Advertising in the columns of the employees' paper offers an excellent method of reducing the expenses of publication. Some papers have had unusual success in this respect. If its purpose is not to be defeated, however, careful censorship of the advertisements which go into the paper is necessary. It is the practice to exclude all advertising relating to patent medicines, quack physicians, investment schemes, commercial agencies, and in general, matters of a questionable nature.

An energetic employee could well serve as advertising manager. He might be appointed by the editorial board when the paper is launched, to hold office for six months. After that his office should become elective on the part of employees.

A good plan to get advertising matter is to offer a commission of 5 per cent to employees for each advertisement they solicit and obtain. Interest in securing advertisements may be stimulated through special contests. A first prize of five or ten dollars in addition to the regular percentage might be given to the one who brings in the largest amount of money for advertisements with a suitable second prize for the next highest results, and an honorable mention list for the others in the contest.

The rates for space will depend on the cost of printing, the circulation, and the position in which the advertisement is to appear. It would be well to get the advice of the advertising manager of the plant or some other executive com-

petent to pass judgment on the matter. Possible income from advertising should be gauged by the space allotted for that purpose. In no case should advertising be allowed to encroach too much on the space which ought to be devoted to reading matter. A fair allotment would be one-eighth of the number of pages.

Readers should be urged to give advertisers their trade. This may be helped by a printed caption at the bottom of the advertising page, such as "Please mention this magazine when patronizing advertisers. It will help this paper grow for your benefit," or, "Boost The . . . (name of your paper). Buy from advertisers."

CHAPTER XXI

THE HOUSING PROBLEM—IMPORTANCE

The Housing Problem

Assuming that all the factors within the plant affecting labor turnover are being properly taken care of, there still remains the problem of housing the working force adequately; and it is a problem which goes to the root of efforts at labor maintenance. No labor force can be stable if it is not housed satisfactorily. The great increase in the population of industrial communities in recent years makes a solution of the problem still more urgent. Bad housing conditions are responsible for dissatisfaction with work, for unrest, and for a large portion of the turnover of labor.

Consideration of the problem of housing means study of conditions within and outside the plant. Further, the term "housing" includes not merely homes for the workers, but schools, stores, churches, and other buildings that serve community needs. The supply of labor is vitally affected by the conditions which go to make up the housing problem. Concerns which have trouble in securing an adequate supply of labor on account of poor housing facilities are not rare.

Good Housing Versus High Labor Turnover

Housing has a direct bearing on labor turnover. It is true that the two chief elements in labor maintenance are adequate wages and good working conditions; but the next factor is housing. Earnings and employment methods within an establishment will always determine in the main whether a manufacturer holds his employees. In a large sense workmen

choose their place of employment. The employer has insisted upon efficient workers. Now they are coming to insist upon an efficient employer. He, on his part, is coming to see that he has a responsibility outside of his place of business or manufacture—a responsibility that extends into the living conditions of his employees in the community. He has, indeed, a high duty toward the community itself.

Nor need the employer be actuated by principles of philanthropy. We owe the beginnings of numerous kinds of labor improvements to philanthropy, but we are finding that the underlying principles after all, the principles that give a sane working basis, are economic. It is, first of all, to the employer's financial interest to have all the conditions in which the employee works and lives of the most advantageous kind. Thus the employee keeps in physical and mental trim and works most steadily and efficiently.

Importance of Housing Taught by the War

Housing may indeed become an all-important factor in labor turnover, as the late war taught both England and this country. During that period workers were brought together in large and small communities in such numbers that the housing problem became almost more difficult of solution than wages and working conditions. In the United States the War Department found it necessary to establish the United States Housing Corporation, and to enter upon an extensive program of building in communities in which corporations had contracts with the national government. The American Civic Association and the United States Chamber of Commerce made housing studies, published information, and took up other activities in the interests of good housing.

Industrial Housing in England During the War

In England the housing of munitions workers was one of

the most urgent domestic problems which the English government had to solve in the course of the war. The enlargement of existing works and the opening up of new factories involved a great increase in the wage-earning population of many communities. The methods adopted by the English government to meet conditions were various. In some places temporary accommodations were provided, but in most places permanent buildings were erected, especially where there had been a scarcity of houses before the war and where it seemed likely that permanent manufacturing activity would continue after the war. Loans were made to public utility societies which were able to deal with the housing problem, or government loans were made to manufacturers. Such loans were issued at the current rate of interest and for a period of forty years. In other instances the government made a partial proportion of the cost of building to certain local authorities. All these methods merely put the government behind the project of housing, while the actual work was carried out by individuals and local organizations.

The characteristic type of permanent building erected was a two-story brick cottage, containing a living-room, kitchen, bath, and two or three bedrooms. Such cottages were built in rows with sufficient space for light and air between. Altogether the chief types of dwelling constructed for English munition workers have been three—huts, hostels, and cottages.

The term "hut" includes all buildings of a temporary or semitemporary nature. They were built usually of concrete slabs or were cheap wooden structures lined inside with beaver board. These temporary buildings were constructed both as single-family houses and large dormitories accommodating as many as one hundred single men or single women.

The "hostels" were cottages, usually of a permanent character, which could be easily converted into single-family cot-

tages after the war. The cost of these was little more than that of huts and the value much greater after temporary use. The hostels were generally built in small groups, in rows, or around the three sides of a quadrangle.

The cottages were fully completed houses, of various sizes to suit the needs of occupants. They were generally built in groups of four with a density of twelve to the acre.

In addition to these three types of buildings, the English government erected shops, stores, schoolhouses, public buildings, and other structures necessary for the public needs of a community. Streets and parks were laid out, and permanent communities were provided for.

Industrial Housing in the United States in War Time

When the United States finally entered the European War, it became necessary to produce ships, munitions, food supplies, and other war materials immediately and in great quantities. Contracts were entered into with shipyards, munition works, steelmills, textile-mills, shoe factories, and other manufacturing concerns. New industrial communities were necessarily established and the housing facilities of nearly all the old industrial communities proved inadequate. The United States Housing Corporation was established by the War Department to plan and carry out improvements in housing conditions wherever the government was interested in increased production in war materials, and to build, or co-operate in building, new houses wherever needed. The help of existing agencies interested in this line of activity was sought. Landscape architects and engineers of national reputation, men who were authorities upon town and city planning, public health experts, and others, were either employed by the Housing Corporation or were brought into consultation with it.

The corporation had the advantage of the example of the English housing activities in connection with plants and com-

munities producing war supplies. The corporation immediately planned an extensive program of improvement and building in our American communities. It sought the interest and co-operation of employers, local committees, and individuals in the industrial communities where housing improvements were to be projected. In the Department of Labor at Washington there was also established a Bureau of Industrial Housing and Transportation.

The building projects recognized as necessary by the production authorities of the army and navy and by the Housing Corporation at the time of the signing of the armistice, November 11, 1918, involved an estimated expenditure of \$194,000,000. The allotments for building improvements already made, fully covered the \$100,000,000 then available by government appropriations, while the total actual expenditure up to this time was \$45,000,000.

Results of Inadequate Housing

In the reports of the United States Housing Corporation are interesting facts showing the relation of housing facilities to labor turnover in certain well-known industrial plants. The facts regarding the housing conditions near one of the largest ship-building concerns may be summarized as follows. These conditions may be surprising, but they are only such as existed in most other industrial communities in which the national government had contracts for ships, munitions, or other war materials.

The labor turnover at this particular plant for January, February, March, and April, 1918, was 118 per cent, or at the rate of 354 per cent a year. Within the week of February 23, 158 workmen left the plant on account of poor housing, and 12 on account of poor transportation.

The chief reason given for leaving, during the four months' period mentioned, was the difficulty of obtaining decent hous-

ing facilities. The difficulty was particularly great for a man with a family. Unmarried men put up with almost any form of inconvenience in order to stay on the job and earn the high wages that were being paid to shipworkers; they slept from two to eight in a room, and in some cases used the same beds in relays. The custom of working in shifts of eight hours each was extended to sleeping in turn in the same quarters.

When suitable houses were found for men with families, the high prices charged and rent profiteering often made it impossible for workmen to secure them; and sometimes the raising of rent after a family had entered a house compelled the wage-earner of the family to give up his job and move to another community, even when he must look for less profitable employment. The daily absences from work in the plant in the period above referred to were often as high as 30 per cent, resulting mainly, as investigation showed, from difficulty in securing suitable rooms and tenements, and from exorbitant rent charges.

Report of the Housing Corporation

The reports of the corporation concerning other shipyards and munition plants are given in part in the following paragraphs taken from the staff conference report of May 8, 1918, on the general situation at Bridgeport, Connecticut:

Because of the universal recognition of the fact that labor turnover must be kept within reasonable limits, if maximum production is to be obtained, and, since any housing shortage and the amount and kind of housing provided to fill that shortage is bound to have a large effect on labor turnover, we endeavored to get a fairly definite view of the situation as regards turnover in the district.

Labor turnover in industrial plants in Bridgeport is seriously high. The Remington Arms Company has had, during

the past twelve months, a turnover of about 88 per cent, which is the lowest that we found in the district. Most of the manufacturing plants, particularly those engaged in war production, report labor turnover rates running from 200 to 400 per cent per year at the present time, and one important company reported a turnover of 50 per cent a month, or at the rate of 600 per cent a year.

Employers interviewed, without exception, consider that housing shortage is a very important, if not the principal, cause of high turnover.

Employers stated that, if they could reduce their labor turnover to reasonable proportions, they could, with their present equipment, increase their production anywhere from 10 to 20 per cent.

The following is dated August 22, 1918, and relates to Bethlehem, Pennsylvania:

Congestion is terrible; many live 3 shifts in a house. Impossible to increase transportation; service taxed to utmost; 800 sets of furniture stored in Allentown. Easton has its own large plants; but a good many men come from there. Men do not like temporary dwellings even as a matter of patriotism; find it impossible to keep in physical condition and live in barracks. Need trained machinists of settled habits. Men with families must have homes.

Of Cleveland, Ohio, the report continues:

Turnover high in outlying plants and plants where conditions are bad; but about 30 manufacturers do not ascribe this to lack of housing. A house survey by the Chamber of Commerce reveals: serious shortage among colored workers, pronounced among foreign, but not so for skilled labor. Rents high. Some house capacity for families who can pay \$25 to \$40. Little room capacity for laborer, but considerable for those with higher standard of living. Brass and Copper Company reports 60 per cent monthly turnover and only 60 per cent production with need of 400 more men for existing contracts.

And of Hamilton, Ohio:

Hamilton about one hour ride on railroad north of Cincinnati; one and one-half hours on interurban. There are no considerable settlements within 45 minutes' ride where workers could be housed. Gun carriages, engines for steamships, machine tools are product and the heavy machinery of the plants is valuable. Street railway said to be almost bankrupt. Increased fare to be passed by authorities. Service is poor. Unenviable record as seat of labor trouble. Families are found living in basements, attics, etc. Is expected to work on basis of small net return. Contract was let for 50 houses; but there is doubt whether the building and loan associations can raise the two-thirds promised in addition to the \$132,000 capital subscribed.

Seventeen plants employing 6,900 men and 650 women use 5,300 men and 300 women on war work. 1,400 men and 400 women additional are needed by October 15. Turnover high; 20 per cent common. Production, 60 per cent to 100 per cent of capacity.

As housing accommodations diminished, labor turnover increased as is shown by the following statement on Indianapolis, Indiana:

800 men, 1,200 women; 250 being highly skilled, all the remainder semiskilled. Has plant and equipment for 200 more men and 800 more women added at rate of 400 per month. 95 per cent of plant on government orders. Has been unable to increase force but little owing to lack of housing; but can maintain present rate of work with it. Monthly labor turnover has increased since January from 6 to 14 per cent. Wages are normal for district. It takes 50 minutes to 1 hour and 10 minutes to get from plant to residential parts of city, where there is capacity for more workers. Female workers object to this much more than men. No less essential plants from which workers can be drawn. Some housing capacity for families in Indianapolis and considerable room capacity, but most of it too far from plant.

Frederick Law Olmsted's Views

In a recent number of the *Monthly Labor Review*, the landscape architect, Frederick Law Olmsted, who was manager of the Town Planning Division of the United States Housing Corporation, has this to say concerning the reports made to the Housing Corporation by its investigators:

The labor turnover rose to startling proportions. Examples of excessive labor turnover were supplied by the war industries of practically every city in which the Housing Corporation investigated conditions in housing of labor. Though unsuitable or inadequate housing was not the sole cause of this excessive labor turnover, it is mentioned by employment managers of corporations in many instances as the chief cause and in others as a contributing cause.

The constant training of new employees produced a great reduction in the average of efficiency. Despite unprecedented wages, with a corresponding rapidly increasing unit cost of production, a point was soon reached beyond which there could not occur any further effective increase of the labor force. No urge of patriotism or high wages could compensate for the overloaded accommodations for individual and family life. Inadequate access not only to sleeping places but to food, merchandise, recreation, and everything relating to family and social life outside of working hours, put a limit on production far below the maximum capacity of the increased plants.

Since 1914, the rapidly increasing cost of house construction and the diversion of capital into channels of more profitable return have resulted, even in the face of an increasing need for houses, in a steady decline in the number of houses actually built. The *American Contractor* gives the total investment in residential building in the eastern, central, and northern sections of this country (representing 69 per cent of the total population) as \$432,337,000 for the year 1916, and only \$252,000,000 for 1918.

It became clearly apparent in the summer of 1917 that this part of the failure to produce needed war supplies had become a matter of government concern. Only such methods

of arbitrary stimulation as were already producing notable results in expanding manufacturing capacity could make that capacity effective by supplying the requisite housing facilities.

In one set of cases the problem was so clearly unescapable that there was but little hesitation in meeting it. These were the cases of new industrial establishments created at the order of the government for the sole purpose of producing munitions. They included powder plants, loading plants, and the like, established for reasons of public safety in isolated locations where nothing before existed. Here, quite obviously, the entire facilities for housing employees and for providing some approximation of community life had to be created along with the plant itself. It is interesting to note that even with the temporary class of structures appropriate for these short-lived communities, and even with the use of a large proportion of dormitories, for single men and women willing to live apart from family life while temporarily engaged in war work, the investment in housing facilities rose to large proportions in comparison with the cost of the industrial plant itself.

Much more usually, the war-stimulated industries formed a part of permanent communities. In these the pre-war housing shortage became unendurably aggravated.

A tardy and incomplete recognition of the fundamental nature of the housing problem in its relation to successful war productions occurred on March 1, 1918. On this date Congress authorized the expenditure of \$50,000,000 by the United States Shipping Board for accelerating the production of housing facilities in connection with shipyards. This was a mere drop in the bucket compared with the investment in shipbuilding plants. Another step was taken when Congress authorized the President, on May 16, 1918, to apply \$60,000,000 "for the purposes of providing housing, local transportation, and other general community utilities for such industrial workers as are engaged in arsenals and navy yards of the United States and industries connected with and essential to the national defense, and their families, only during the continuation of the existing war," and on June 4 provided the necessary appropriation. On July 8, 1918, this amount was increased to \$100,000,000.

By executive order, confirmed in the act of June 4, 1918, the Bureau of Industrial Housing and Transportation was created in the Department of Labor to serve these ends, and the funds were expended by it through the United States Housing Corporation, legally created July 9, 1918.

Housing Development of United States Shipping Board

The work of the Housing Corporation in a new community is well shown in a description recently made by the United States Shipping Board Emergency Fleet Corporation of the housing development at St. Helena, Maryland. The description is as follows:

PARCEL "A"

A tract of land of approximately $15\frac{1}{2}$ acres, exclusive of streets and alleys, improved with 296 houses, each having four rooms and bathroom. All houses are two stories and attic high, built of stucco on metal lath on concrete foundations and with slate roofs. Some of the attractive features are electric lights, gas, maple floors and stairs, front piazzas, shades, screens, etc.

These houses are arranged in 36 groups, with rows of four, six, eight and ten houses to a group. Seventy-two end houses are 16 feet, 11 inches wide, with lots averaging 26 feet wide; 54 inside houses are 16 feet, 9 inches wide, and 170 inside houses are 14 feet, 9 inches wide. Lots vary in depth from 90 to 150 feet.

Three vacant plots are included in this tract, dimensions of which are respectively 120' x 131'; 120' x 90'; 55' x 125'.

Streets are paved with concrete; sidewalks and housewalks are of concrete; an ample setback provides an attractive front lawn; planting space has been allowed between curbs and sidewalks; large trees line several of the streets. Streets are well lighted with 100 c-p. incandescent lights placed at street intersections and intervening points. Complete sewers connected with disposal plant of the Dundalk Company are installed. Reservations have been made for 10-foot service alleys in the rear.

PARCEL "B"

A plot of approximately 98,000 square feet upon which has been built a cafeteria and power-house. The cafeteria building is one story high, erected on concrete foundations and has a floor area of about 36,000 square feet. Some of the floors are of concrete. This building is fully connected with water and sewers. Fire lines throughout the building with frequent hose connections furnish ample fire protection. Electric wiring is all installed for lighting and gas lines connected.

The power-house is built of brick and is equipped with two 90-horse-power high-pressure boilers with complete auxiliary fittings.

The two above-described parcels are located on the Sparrow's Point Branch of the Pennsylvania Railroad, the westerly frontage of the property being within a few feet of the St. Helena Station. This property also fronts on the line of the Bay Shore Branch of the United Railway and Electric Company, which operates high-speed electric trains between Baltimore and the Bay Shore Terminal. Running time from the heart of Baltimore is about 30 minutes and from the Sparrow's Point Shipyard of the Bethlehem Shipbuilding Corporation about 10 minutes. A portion of Parcel "A" is within the limits of the city of Baltimore.

The Importance of Housing in Peace Times

In times of peace, even more than in war, the housing problem is important if industry is to continue without the loss of millions of dollars annually in silent labor leakage. Tens of thousands of laborers are compelled under normal, peace-time conditions, to live in quarters that sap their efficiency, or to move from house to house at a constant financial loss, or to go from community to community with consequent loss in wages, and frequently to change an occupation altogether. From the standpoint of housing alone, American industrial workers fall far short of 100 per cent in industrial efficiency.

As the war has brought vividly to our attention, congestion in large cities and industrial communities means disease, lowered physical and mental vitality, immorality, and crime. This is no less true in peace times. As was said at the beginning of this chapter, the results, or the losses owing to poor housing, are both economic and social. They reduce the welfare and the happiness of the community. On the other hand, good housing, under hygienic conditions, and with a reduction of congestion, means efficient and contented labor force, labor stability, increased self-respect among workers, and pride in employment and community welfare.

Good Housing and Health

Both the industrial physician and the ordinary practitioner have been of the highest service in the gains already made in housing in this and other countries. They have come to realize that good housing is a basal condition not only in labor maintenance but in social welfare. Doctor Charles P. Caldwell of the Chicago Municipal Tuberculosis Sanitarium in an address at the Sixth Annual Conference, National Housing Association, Chicago, 1917, put the matter very clearly.

The housing problem, or more properly as the physician sees it, the home problem, because it includes not only the house itself, but the sanitary conditions within and without the house, is deserving of the most serious consideration.

It is in the home for the most part, that the entire drama of life is played; it is the foundation and corner-stone of society and should be safeguarded. Koch, the discoverer of the tuberculosis bacillus, has said that tuberculosis can be called a dwelling disease. The improvement in housing conditions is a most hopeful sign and promises much in the way of proper drainage, more cubic space, more glass and sun areas in the house. The architect who plans and offers sunless houses for dwelling places is a foe to the community.

He further says that improvement in sanitation and the

provision of decent and sanitary dwellings will not solve the problem of good health and citizenship, for an ideal house may soon become unsanitary under slovenly management and poor housekeeping.

The solution of the problem lies in a large measure with the people themselves. They must be taught step by step to desire improvement. They must be taught cleanliness, the value of fresh air and sunshine, the proper selection and preparation of food, and also they must be taught their duties and responsibilities to the public.

Every physician and social worker knows well that these are bitter days for the poor. Great accessions of wealth have come in this country in the past two or three years but its distribution has been more than usually unequal. Wages have risen it is true, but not in proportion to the increased cost of living. You cannot prove to the wage-earner that he is better off by telling him that wages have advanced. He knows this, but he also knows that prices have advanced far out of proportion to wages.

What immediate adequate remedy can be evoked to make more tolerable the lot of man or woman wholly dependent on salary, is not yet plain. Many families have been obliged to move into smaller quarters and we know that poverty and congested districts increase sickness and death.

Municipal public parks and playgrounds, infant welfare stations, public nurseries, children's preventoriums, open-air schools, the opening of stub-end streets, sanitary sewage-disposal, and better housing laws are needed.

The medical profession is ready to turn to the task with all good-will and do what it can but the people cannot be kept well by drugs; they need good food, fresh air, clean and well-ventilated rooms.

Suggestions for Proper Housing

At the end of our discussion it may help to a better understanding of the problem, and what should be done about it, to present its elements (together with constructive sugges-

tions) as expressed by John Nolen, who is probably the greatest expert on industrial housing in the United States.

1. Good planning applied to industrial housing pays.

2. New factories, for their own interest as well as that of all others concerned, should locate in the outskirts of cities whenever practicable.

3. As opportunity offers, factories now existing in cities should be encouraged to move to the outskirts.

4. Employers and employees should co-operate in a social and democratic way to create an attractive local community on the outskirts of cities near factories, both doing their part to make the community healthful, convenient, and satisfying.

5. The same co-operation should be directed toward securing also for employees and their families, by transportation facilities, some of the advantages and permanent attractions of city life.

6. The choice for factory employees should not be sharply drawn between the city and the country. Both should be recognized as desirable—the city for occasional inspiration and diversion, and the more open country on the outskirts of cities for the essentials of daily family life.

7. A good home for every wage-earner is possible only by recognizing that housing is closely related to a number of large and difficult problems.

8. The first step towards a solution of the problem is to recognize that the subject is one for the right application of broad economic principles.

9. Under proper organization, much of the necessary capital could be obtained from the wage-earners themselves through the organization of building and loan associations and co-operative banks.

10. Finally, the better handling of low-cost housing offers one of the best opportunities to contribute to industrial efficiency and to the welfare of the wage-earner.

CHAPTER XXII

THE HOUSING PROBLEM—WHAT TO DO

The Duty of Industry as to Housing

It is not necessary to ask whether good housing pays. The conditions and accomplishments already presented should be sufficient evidence of the economic gain which is to be found in proper housing conditions in any industrial locality. Investigations made by experts in many places, the advanced steps taken by individual employers and capitalists, and by organizations, governmental and private, bear witness to the importance of the problem. Industry owes it to itself, to its workers, and to the community to concern itself with proper housing facilities.

Large corporations long ago found the profitableness of good housing. Fifty years ago the Amoskeag Manufacturing Company, a textile corporation of Manchester, New Hampshire, erected scores of brick houses, in entire blocks along the streets adjacent to its plant. These houses have been maintained in good condition to the present day. Improvements have been made from time to time, as needed, and houses of a more modern type were built as required. Rents have been made low to employees. The result has been industrial peace and good-will toward the corporation in its great industrial community. Fifty years ago, then, a great corporation built and rented homes to its employees. Fifty years later we find many corporations making loans to employees or otherwise enabling them to build homes for themselves.

A striking example is that of the American Woolen Company at its factories at Lawrence, Massachusetts. The com-

pany has just announced a plan whereby it will furnish to its employees 90 per cent of the money required to buy land and build homes, at a $4\frac{1}{2}$ per cent rate of interest. This plan has one serious defect, which leaves it open to criticism and perhaps may lead to failure, namely, the stipulation that should the employee leave the company, he will have to find a new mortgagee or the company "would be obliged to foreclose." Aside from this point, however, the plan is well devised.

The homes will be of the single-family type, will each cover about 4,500 feet, be equipped with electricity, modern plumbing, and fittings. Monthly payments, after an initial payment of 5 per cent of the selling price, are to be equal to the rent for the type of house. A part of the monthly payment will cover interest charges, taxes, and insurance; the remainder will go towards reducing the mortgage. A special corporation called the Homestead Association is to handle the project including the mortgages.

Fairbanks Morse Company's Plan

One of the most recent efforts in industrial housing is that of the Fairbanks Morse Company, at Beloit, Wisconsin. This company employs about 3,600 men in the manufacture of engines and steam-pumps. The development is called "Eclipse Park" and is a garden village made up entirely of single-family detached houses for mechanics earning \$20 a week or more. Some of the houses are to be for clerks and foremen.

Eclipse Park consists of about 53 acres within two miles from the heart of the city. Adjoining this tract are the athletic field and works of the company. Each house is set back at least 20 feet from the front line of the lot to allow for grass, shrubs, and trees. Each house has its own individuality, a factor often neglected in building new industrial cities. The distance between houses is 15 feet. The lots are of varied size with a minimum width of 40 feet and depth of 80 feet.

When the project is completed there will be 350 houses of various designs.

Housing Betterment in Maine

A sensible method of determining how best to meet the housing needs of their employees was used recently by two Maine textile-mills employing 3,000 men and women. They had a survey made to determine the size and type of house in which their workers live, what rents they pay, how many own their own homes, the size and type of house preferred by workers and their wives, what modern improvements they care enough for to pay for, what rents they can be reasonably expected to pay in view of their income, how many desire to buy houses, how much they can afford to pay, and the terms on which such homes can be sold. This survey, made by Miss Edith Elmer Wood,¹ brought out some interesting points.

In addition to personal visits to homes of workers and interviews with them at the mills, Miss Wood used questionnaires enclosed in the pay envelopes to obtain her information. She found an overwhelming demand for five and six-room houses, with bath, electric light, stationary tubs, and concrete cellar. Strong preference was shown for bungalows. More than a third of the families studied already owned their homes.

The company controlling the two mills decided to build 100 houses and purchased 24 acres to develop along garden suburb plans. The first 50 houses included 10 four-room bungalows, 16 semidetached five-room houses, 6 detached five-room houses, and 18 detached six-room houses. All contain bath, furnace, hot-water boiler, stationary tubs, electric light, and concrete cellar.

¹ See *Housing Betterment* (New York), December, 1919, pages 29-31.

The Clark Equipment Company

The way the Clark Equipment Company approached its housing problem is worth noting. This concern, located in Buchanan, Michigan, a town of about 4,000, manufactures axles and steel wheels for motor trucks, and high-speed drills and precision tools. The plant is located in a park, all the buildings being grouped around a center garden and cultivated lawns. The approach to the factory is through an avenue of poplars. On the grounds is a greenhouse where a gardener raises various plants for beautifying the park and the individual yards.

A shortage of houses induced the company to plan the building of homes for employees to be sold to them at cost. The first step was a questionnaire to employees followed by a meeting in the company theater (which seats 1,000) where the plan was explained by means of talks, sketches, and lantern-slides. The company bought 110 acres of land, 40 of which they planted and laid out with wide streets, trees, grass-plots, sidewalks, water, gas, and electricity.

In fixing the prices for houses, the company added 100 per cent to the actual cost of the lot and 5 per cent on the cost of the house. This was done to prevent speculation and profiteering. Houses were sold to employees at prices from \$1,900 to \$4,500, and on easy terms which paid off both principal and interest within a certain number of years. The initial payments were from \$180 to \$400, and averaged about 10 per cent of the selling price. When payments have been made for five years the purchaser has an equity sufficient to guarantee his good faith in going through with the deal. After that period, therefore, the company remits the 100 per cent on the lot and the 5 per cent on the house and applies it to the account of the purchaser. In this way the employee gets his home at actual cost. Forty-four houses have been erected and more will follow.

The General Motors Corporation

Among the largest housing developments in the country is that of the General Motors Corporation. It will have 1,000 houses at Flint, Michigan, and 500 at Pontiac. These houses will not all be identical; they will be of various sizes and styles. The 4-room bungalows and houses will have two bedrooms, a living-room, kitchen, and bath; in the 5-room bungalows the additional room will be a dining-room; and in the 6- and 7-room houses the additional rooms will be bedrooms. The cellars of these houses will be cemented.

Some of these houses will be frame; some with one-story stucco on tile and second story of shingles; some all stucco on tile; some with one story of brick veneer, second story all shingles and some with solid brick walls. There will be a further variation in the kind of shingles used.

The community, and the houses of the community, will be modern in every way. The houses will be electrically lighted, and have every up-to-date domestic appurtenance as well; the streets will be paved and planted with trees; concrete paths (from concrete sidewalks) will lead up to the houses and around to the back door; and grass will be planted about the houses.

Aiding Employees to Purchase

The General Motors Corporation has appropriated a certain sum of money to assist its employees in purchasing homes. The Modern Housing Corporation, under which name the company will operate, will charge purchasers the customary 6 per cent interest for the indebtedness incurred in the transaction.

When an employee buys one of the houses, which cost from \$3,500 to \$8,500, the General Motors Corporation will advance \$800 to be used as part of the first payment on the purchase and no interest will be charged on this sum. This is not a

gift. In return for this advance the company asks each buyer to agree that, in case he shall resign or be discharged from its employ within five years from the date of his contract of purchase, the company is to have the privilege within 30 days thereafter of buying his house. He will be credited with all payments made, not including the \$800 advanced by the company, for principal, interest, taxes, assessments, and insurance, and will be charged with a sum equal to rent at the rate of 10 per cent per annum on the selling price mentioned in the contract, from the date of the contract, no deduction being made for depreciation. No interest will be allowed on either side of the statement, and the balance will be paid to whichever party is entitled to it. This means that the purchaser has paid nothing more than his rent during the occupancy.

The company will also assist employees through the \$800 advance in buying houses for their occupancy, even if the house is not bought from the Modern Housing Corporation, but the houses must be worth from \$3,500 to \$8,500. The exact terms in such cases will depend on the merits of individual cases. The above offers are made revocable at any time.

If an employee wishes to furnish his own plans, or have plans specially drawn for him by the Housing Corporation and have an independent contractor do his building, the General Motors Corporation will assist him as above, but he must submit his plans and specifications for approval. In addition he must submit bids from at least two independent contractors, and these bids will be checked up by the engineering department as to fairness of price. Upon approval of the plans, the General Motors Corporation will advance the \$800, if with such aid the employee will be able to finance the acquisition of the lot and the building of the house, and if the employee will secure the company against loss, should he leave

or be discharged from service within five years from the date of the advance of the \$800.

In explaining the plan to employees the company makes the following statement:

After careful study, the company believes itself justified in spending \$800 in assisting each employee to invest his savings in a home of the value stated, near its plants, and in making it worth while for the employee to continue in its employ for five years. If he does not wish to continue in its employ he need not do so; he is perfectly free to leave at any moment. But it would be manifestly unfair to the company that he should do this and take away with him or reap the benefit of the \$800 advanced by the company to enable him, because he is an employee, to acquire a home at a pre-war price. Of course the company has no thought of reaping a profit from any rise in value of the home. If the employee wishes to sell in order to realize a profit he is at perfect liberty to do so, on repaying the company the \$800 advanced to him, plus the balance due on the contract.

Method of Payment on Dwellings

A minimum cash payment of 5 per cent of the selling price is required in addition to the \$800 advanced by the company. Each purchaser must devote 25 per cent of his earnings each year to the payment of principal, interest, taxes, and fire insurance on his dwelling until it is fully paid for. After the estimated cost of taxes and fire insurance is deducted, the balance of 25 per cent is divided into 12 equal parts which represent the 12 instalments falling due each year. These monthly instalments will pay the interest on the total indebtedness incurred by the contract of purchase as well as a portion of the principal of the debt, so that if the purchaser fulfils his agreement, he will be paying each month a slightly smaller part of the instalment as interest, and a slightly greater payment on account of the principal. In this way both interest and principal are reduced.

When employees paying money into the Employees' Savings Fund buy homes on contracts requiring monthly payments, it may happen that their earnings will not be large enough to allow them both to pay money into the savings fund and to make the necessary payments for their houses. Such employees may arrange with the General Motors Corporation that their monthly payments into the savings fund be invested in their contracts for the purchase of dwellings without in any way forfeiting any rights under the savings and investment plan.

Purchasers can pay off the indebtedness on their houses faster than at the agreed rate if they so desire. When the full amount is paid up the employee will receive a warranty deed and abstract guaranty or certificate of title, but to receive the deed within the five-year period mentioned above, the purchaser will be expected to repay the \$800 advanced by the company.

The time required to pay off the indebtedness on the purchase of a home will vary with the individual and the company has prepared figures to show each purchaser just how long it will take. Very often the dwelling will be fully paid for at the end of ten years. Some may have saved enough in the savings and investment fund to complete the payments on the dwelling; but if not, they may obtain a mortgage on the house for the unpaid balance. In any event, the employee will receive a warranty deed for his home and an abstract or certificate of title.

A Unique Development

Another interesting development in housing, is that of the Talbot Mills at South Billerica, Massachusetts. The company seeks to keep up community pride in the attractiveness of the village by means of prize competitions. An example is the "Village Improvement Competition" conducted two years ago

at which five classes of prizes were offered. The competition was open to all persons, men, women, and children, living in the company's houses and no restriction was made as to the number of competitions a person might enter into. Prizes were distributed as follows:

Class 1. Best-kept premises, front and rear. Points considered were: Condition of lawn, paths, and back yards, including freedom from weeds, and general neatness of grounds and exterior of house. Wherever there was a strip of sidewalk turf it was considered part of the lawn. Five prizes: \$10, \$5, \$4, \$3, \$2.

Class 2. Vines. On houses, porches, arbors, trellises, or other parts in front of premises. Five prizes: \$5, \$4, \$3, \$2, \$1.

Class 3. Window- and Porch-Boxes. Five prizes: \$5, \$4, \$3, \$2, \$1.

Class 4. Flower Gardens. Design or arrangement were considered, as well as variety and quantity of flowers. Five prizes: \$5, \$4, \$3, \$2, \$1.

Class 5. Vegetable Gardens. This competition was open only to children under 16 years of age, but suggestions and assistance from parents were allowed. Points considered were: quality, quantity, and variety of vegetables and neatness of garden. The garden was not to exceed 600 square feet in area. Five prizes: \$5, \$4, \$3, \$2, \$1.

In addition to the money awards offered, the winner of the first and second prizes in each class were allowed a choice from a list of books and magazines on gardening in its various branches.

The company gave participants the free use of lawnmowers. Tenants were required to follow these rules:

1. No nails or screws to be used on exterior of houses. The company will supply and put up, without charge, trellises for vines and boxes for windows and porches on application made to the repair-shop before May 1.

2. Vegetable gardens must be planted back of a line connecting the rears of the houses.

The Goodyear Tire and Rubber Company

A few other examples may be cited to show the extent and variety of the movement for better housing for workers.

"Goodyear Heights" consists of 400 acres laid out by the Goodyear Tire and Rubber Company at Akron, Ohio, according to Garden City principles. Lots and single houses are sold to employees at cost on the instalment plan. The purchaser carries a special diminishing life insurance policy so that in case of death the insurance will pay for the property. The houses have cost between \$1,800 and \$4,000.

The Firestone Tire and Rubber Company

"Firestone Park" is a housing development of the Firestone Tire and Rubber Company, also in Akron, in which the company has put about \$1,500,000. The land constituting this development allows for the construction of about 900 homes for workers. Provision is made for a public school, churches, and a public park. The lots or houses are purchased by workers by a payment of 5 per cent with their order and monthly payments of 1 per cent out of which the interest on the investment, insurance and taxes are paid by the company. Houses are built, if the workers desire, by a real estate company formed by the Firestone Company as a subsidiary corporation, and are sold at prices up to \$3,000. Allowance of 6 per cent is made on the house if the purchaser wants to bear the cost of insurance.

The Gary Plan

Gary, Indiana, is a town developed by the United States Steel Corporation. The Gary Land Company, a subsidiary

of the Steel Corporation conducts the housing development which extends over an area of something more than 27 square miles and consists of about 1,000 houses. Rents range from \$12 a month up.

Indian Hill

“Indian Hill” at Worcester, Massachusetts, is a notable achievement of the Norton Grinding Company. Its houses are of real beauty and the whole colony presents a decided contrast from the usual industrial town. The employee who wishes to purchase, makes an initial payment of 10 per cent of the purchase price. The balance is covered by two notes, one for \$1,000 payable in 12 years at 5 per cent, the other, for the balance, is a demand note with interest at 5 per cent. A purchase-money mortgage secures both notes. Payment of the \$1,000 is insured by the agreement of the purchaser to buy 5 shares in a co-operative bank and to continue payments on those shares until his deposits mature in the sum of \$1,000—which occurs in about 12 years. It is agreed by the company that it will not make demand on the demand note so long as the purchaser continues to make his monthly payments of interest to the company, and the monthly payments to the co-operative bank. It is also agreed by the company that in case of the death or incapacity of the purchaser or within 12 years (provided he is not over 60 years old at that time) it will accept the surrender value of the co-operative bank shares as complete payment of the time note.

Other Noteworthy Efforts

Among other noteworthy efforts at housing workers properly are the famous model town of Leclaire, Illinois, built by the N. O. Nelson Company, and the town of Hopedale, Massachusetts, laid out by the Draper Company.

Further Instances

In England notable housing developments are Letchworth Village, Bourneville, Port Sunlight, and Hampsted Garden Suburbs.

The Bradley Knitting Company, Delavan, Wisconsin, is spending \$80,000 in building a hotel to accommodate 100 girls. Saks and Company in New York City are also building a hotel for women employees.²

Housing the Unmarried Worker

Housing the single worker presents an angle of the question which needs careful study. One cannot generalize about this. It is a practical question upon which the light of experience must be thrown. A notable effort in this direction is that of the General Motors Corporation which is erecting in Flint, Michigan, a "hotel club" for men. About \$2,500,000 are being spent by the corporation to erect a 7-story fireproof dormitory with facilities for recreation sufficient to accommodate 2,759 persons. The main building is to be 280 feet long and 214 feet deep. The upper floors will provide sleeping-rooms for 1,168 men and each room is to have its own lavatory with hot and cold water, and a closet for clothes.

Each floor is to have 4 general toilet-rooms equipped with shower baths. Two light courts above the first story, each 86 by 142 feet wide, allow light and air for all bedrooms.

Public recreation rooms and other rooms for workers and their families will take up the main floor and basement.

² Other examples of industrial housing are the following: American Chain Company, Bridgeport, Conn.; Remington Arms Company, Bridgeport, Conn.; Colorado Fuel and Iron Company, in their various mining towns; American Viscose Company, Marcus Hook, Pa.; American Rolling Mill Company, Middletown, Ohio; Peacedale Manufacturing Company, Peacedale, Pa.; Maryland Steel Company, Sparrow's Point, Md.; Youngstown Sheet and Tube Company, Youngstown, Ohio; Merchant Shipbuilding Corporation, Harriman, Pa.; The Wayne Coal Company, Steubenville, Ohio; Clintonville Development Company, Clintonville, Wis.; Atlantic Mills Company, Providence, R. I.; Root and Vandervoort, East Moline, Ill.; New Jersey Zinc Company, Palmerton, Pa.; Plymouth Cordage Company, Plymouth, Mass.; Talbot Mills, North Billerica, Mass.; Ludlow Associates, Ludlow, Mass.; Newport News Shipbuilding and Dry Dock Company, Newport News, Va.; New York Shipbuilding Company, Camden, N. J.; Merchant Shipbuilding Corporation, Harriman, Pa.

A library with a capacity of 6,000 volumes, a billiard and game room, a gymnasium and smaller exercise room, instructor's office, examination room, dressing-room and bathroom are provided for in this section of the building.

Among other features are to be classrooms for 180, an auditorium seating 1,279, bowling-alleys, cafeteria, restaurant, Turkish bath, a drugstore, a tailor-shop, a shoeshop, and a men's furnishing store. The proposed swimming-pool, 25 by 75 feet, with a spectators' gallery for 184 persons, will be the largest swimming-pool in the state.

The Real Estate Bureau and Room Registry

Where a plant is in a large city it often is found advantageous to maintain a real estate bureau or office, or a room registry for the convenience of new and old employees. Such a bureau, which is generally under the supervision of the service department, works in very close connection with the employment department. Its function is to investigate the housing possibilities of the community and to direct workers to the best available living quarters. Lists of facilities are kept on file and are posted on bulletin-boards. Frequent check-up (daily if the number of applicants is large) is necessary to make sure that the places listed are still available. In a project of this sort it will not be difficult to enlist the co-operation of the community. Bureaus such as described have been very successful at the yards of the Bethlehem Shipbuilding Corporation and other shipbuilding concerns, at the Miller Lock Company, Philadelphia; the Remington Arms Company, Bridgeport; and other plants.

At the Erie works of the General Electric Company, employees who plan to move are asked to notify the service department. This gives opportunity to place Erie workers in suitable quarters before the general public becomes aware of the vacancy.

Separate Housing Corporation—The Best Method

Objections have been raised against control of housing projects directly by an industrial corporation on the ground that such activity takes up the time of a large number of persons, involves the expenditure or the tying up, by investment, of capital which may be needed in manufacturing and gives the company an undue influence over its employees.

Experience has made it clear that the best method of handling industrial housing is through specially organized corporations which assume the burden of finance and service. Usually these corporations take the form of joint-stock corporations and in their management are distinctly separated from the concern which fosters them.³

How to Go About It

By far the best suggestions for procedure in securing the best possible housing in the shortest time practicable and at a minimum cost are outlined in a statement by John Nolen prepared originally for the Chamber of Commerce of the United States. So excellent are Mr. Nolen's program and the questionnaire for employers that both are here reprinted in full:

PROGRAM

- I. Formation of local house-building company. Similar, for example, to the Kenosha House Building Company, of Kenosha, Wis-

³ Among concerns which have adopted this method are the following. The names given in parentheses are the names of separate corporations referred to above. Goodyear Tire and Rubber Company, Akron, Ohio. (Goodyear Heights Realty Company); Firestone Tire and Rubber Company, Akron, Ohio. (Coventry Land Company); Brighton Mills, Alwood, N. J. (Alwood Mutual Homes Company); Fairbanks, Morse and Company, Beloit, Wis. (Eclipse Home Makers, Incorporated); Bristol Brass Company, Bristol, Conn. (King Terrace Land Company); Midvale Steel and Iron Company, Coatesville, Pa.; Connecticut Mills Company, Danielson, Conn. (Danielson Construction Company); American Sheet and Tin Plate Company, Donora, Pa.; Minnesota Steel and Iron Company, Duluth, Minn.; Dennison Manufacturing Company, Framingham, Mass. (Framingham Associates, Incorporated); United States Steel Corporation, Gary, Ind. (Gary Land Company); New Jersey Zinc Company, Palmerton, Pa. (Palmerton Land Company); Youngstown Sheet and Tube Company, Youngstown, Ohio. (Buckeye Land Company); Pennsylvania Rubber Company, Jeannette, Pa. (Parco Realty Company); American Sheet Steel Company, Vandergrift, Pa.

consin, and the Bridgeport Housing Company, Bridgeport, Connecticut.

2. Get facts on the demand:

(a) Extent of demand:

Names of places.

Estimated number of houses needed in each place.

(See questionnaire, page 337.)

(b) Character of demand:

Houses for rent.

Houses for sale.

Land for sale.

3. Methods of meeting demand:

(a) Temporary housing:

New and old.

(b) Adoption of factory methods:

Standardization.

Economic construction in concrete, brick, wood, etc.;
the mill-cut house.

Wholesale operations.

(c) Operations should not be confined to any one house or method. All should be employed. Whatever types have advantages of economy of land cost or of land construction should be included. Group houses, using permanent materials, are especially recommended for rent. The use of different types takes into account the fact that different people have different tastes.

(d) Early purchase of land. Land developments, including restrictions and districting. Consideration of legal powers.

(e) Related towns and city planning:

Transportation.

Recreation—public and semipublic.

Schools and other local public buildings.

Zone and building regulations.

4. How to finance the small house:

(a) Sound schemes for houses for rent as permanent investment.

(b) Sound schemes for houses for sale. Easy terms.

- (c) Sound scheme for the sale of lots.
- (d) Prevention of excessive speculation.

5. Financial obstacles:

- (a) Low rate of interest (usually 5 or 6 per cent net as maximum).
- (b) Large capital required (about \$1,000 per family).
- (c) Investment is permanent, as money cannot be easily or quickly withdrawn.
- (d) Uncertainty of future (as to investment itself, and annual return; effect of hard times upon real estate).
- (e) Opinion that housing by employer may interfere with individual rights of employees (paternalism).

6. What does experience teach?

- (a) Consider lessons of low-cost housing schemes. See list in "A Good Home for Every Wage-Earner," published by the American Civic Association. Note especially recent experiences in:

Akron	Hopedale	Salem
Billerica	Kenosha	Toronto
Bound Brook	Kistler	Washington
Bridgeport	Lawrence	Waterbury
Cincinnati	Nanticoke	Wilmington
Duluth	New Haven	Worcester
Flint	Philadelphia	Youngstown

- (b) Consideration of financial housing methods hitherto employed.
- (c) Consideration of ordinary commercial housing methods, as in Philadelphia, for example.

7. Legal aspects.

Among special points requiring consideration are: Revision of building code; power to acquire land for housing; eminent domain; "excess condemnation"; districting; lighting the density of houses; linking housing with city planning; main thoroughfares; transportation; local streets; parks and playgrounds; schools and other public buildings; distributing the cost of public improvements.

SUMMARY

Main Points to Keep in Mind

1. Need to form local house-building committee at once.
2. Local survey of existing conditions.
3. Employ all available methods of meeting demand.
4. Recognize importance of capital and secure fund equal to \$500, multiplied by number of houses desired.
5. A frank recognition of the financial obstacles will be first step toward overcoming them.
6. American housing experience is not altogether encouraging; nevertheless, it is a mistake to ignore it.
7. Legal aspects should be given early consideration; action need not wait upon new laws.

QUESTIONNAIRE FOR THE EMPLOYER

1. How many of your employees are in need of housing now or will require housing in the immediate future?
2. If you expect to increase the number of your employees, what will that number probably be, and what percentage will have to be provided with housing accommodations?
3. How many of the number of employees stated above in questions 1 and 2 are to be provided with housing for the period of the war only? Do you think these employees should be housed in temporary structures?
4. State what proportion of the employees referred to in questions 1 and 2 are men and women.
5. State what proportion are skilled and unskilled.
6. What is the average weekly pay of different classes of labor included in the above estimate? Give range and average.
7. State the proportion of different nationalities represented.
8. What is the usual proportion of married men in your plant?
9. Do you recommend that houses for employees be built for sale on long-term payments, or held by company and rented, or both?
10. Do you favor providing houses in partly built-up sections, or outside such sections, where land is cheaper and more houses could be provided quickly under better conditions and at a lower price?

11. Have you any suggestion to offer as to parcels of land available for the housing of working men? If so, please send full information with map or diagram showing location, if possible.
12. What types or type of the following houses, in your opinion, are most desirable and most likely to meet the demand in your city?
 - (a) The single-family house, the double house, the two-family house, or the multiple dwelling?
 - (b) The detached house, the semidetached house, or the houses built in terrace rows?
 - (c) Houses of wood, terra cotta, poured concrete, concrete blocks, stucco, or bricks?

CHAPTER XXIII

FINANCIAL AIDS—MUTUAL BENEFIT ASSOCIATIONS

The Elimination of Uncertainty as to the Future

An adequate wage is the greatest incentive to good work and satisfaction in doing it. The wages a man gets constitute the basis of his industrial outlook as well as his outlook on life. He must have sufficient return, in the form of wages or salary, to support himself and those dependent on him in a self-respecting fashion.

An adequate wage, moreover, implies more than a means of living from day to day. It implies provision for the future. It is not enough for the worker to pay his way and rear his family. He must lay by something for that period when he will have ceased working and other members of his family may not be able to take up the burden which he lays down. The pay of the worker, in every kind of activity, should be ample to provide for both the present and the future. Not till then does the workman become 100 per cent efficient, fearing no rainy day and concentrating all his energies upon the task in hand.

Methods of Providing for the Future

But merely receiving "good wages" day by day or month by month, will not enable the worker to prepare for the future. He needs to be shown how to save, and how to invest his savings. His desire to save needs to be stimulated and reinforced by active co-operation and aid on the part of his employer. There are ways in which such aid may be given

which are economically sound and which have proved themselves decidedly good business.

The methods developed in recent years of increasing provision for the future of the worker fall under three main headings:

1. Mutual benefit associations
2. Group insurance
3. Profit-sharing

The Nature and Growth of Mutual Associations

The service of the mutual benefit association is in the nature of limited insurance for the workman against accident, sickness, old age, death, or other adversity. It is the simplest and least expensive means taken to compensate for the failure or inability of the workman to save through years of active labor. It is a development of the last 35 years, and has been adopted by national and local trade unions, by groups of working men, by industrial establishments, and by employers and employees operating jointly. According to the secretary of the Flint (Michigan) Vehicle Factories Mutual Benefit Association there are nearly 700 benefit and relief associations in the United States. The purpose always has been to provide benefit for wage-earners and persons on small salaries. The funds established and the organizations maintaining them have borne various names, such as fund, association, society, or department.

The lines of demarcation among the four kinds of organizations just mentioned are not always clear. For example, a labor union fund may expand into an independent benefit society. Again, benefit societies may be classed as national or international, and local. We are concerned in the present volume particularly with the plan and function of the local, industrial, mutual benefit association.

Chief Forms of Benefits

The two most usual forms of benefit have been provision against loss of wages occasioned by disability and provision of funeral expenses in the case of death. The temporary disability benefits are generally intended to cover only partially the loss of earnings occasioned by an illness of ordinary length—of at least one week—or by an accident. They are never intended to pay an amount exceeding the wages lost.

Some of the associations pay death benefits only, some only temporary disability benefits. The far greater number of organizations, however, pay both kinds, and many societies provide additional benefits. A small percentage of the associations provide old-age insurance. Chief of these are the railroad pension funds, which provide for the superannuation of railroad employees.

How the Employer Can Help

In origin, the mutual benefit associations were distinctly the creation of the workers themselves. Workers are everywhere agreed that such an association is a "mighty good thing." This appreciation, increasing year by year, has enabled the employer, and others who desire to aid the workers in their efforts, to develop and extend this form of provision against future want. Many employers have shown themselves ready to aid the movement. It is safe to say, indeed, that the best mutual benefit associations now in existence are those managed by a joint administration of employer and worker.

The employer, though he may have first suggested the matter, may remain in the background. Yet he may give such suggestion and approval as to insure wise and conservative management in the association when once established. He may be available for advice in any time of need. The best condition of all is found when the spirit of the employer or of the establishment permeates the body of workers in such

a way that whatever is done shall be done loyally and for the greatest good of the whole number of people concerned. Such phrases as the "Dodge idea" and "the Filene system" convey a world of meaning. Great business and industrial establishments the country over are coming as never before to appreciate the value of esprit de corps and the individuality of a concern.

The Basis of a Successful Organization

Like any other important movement among industrial workers, the mutual benefit association must be properly launched. The first step must consist of spreading the information among workers. This can be done by word of mouth from superintendents, foremen, and influential persons among the employees, and by means of printed material explaining the nature and workings of the benefit association. Employees must be made to understand its value and feasibility and its desirability in their establishment. This is the real beginning. No actual organization should be undertaken until the great majority of persons concerned, or to be later enrolled, have come to understand clearly the nature of the problem and express their willingness or desire to enter into it. It must be a democratic movement, democratic in its origin and in its control.

Procedure in Organizing

The mutual benefit association should be organized like any other society or club of democratic origin and with democratic ends in view. When the ground has been thoroughly worked over, so that a group of industrial workers is ready to organize, a mass meeting should be called. The promoters of the organization should present definite plans at this meeting and call for a full and free discussion of them. Conditions should be prepared so thoroughly that action may

be taken without undue delay. A number of preliminary meetings, in which misunderstandings and even jealousies may arise, may check or even overthrow the movement at the beginning. There will be the usual officers and committees in such an organization, and they should be elected by the votes of fellow-employees.

There must be a strict adherence by the members of an organization to its rules of conduct and by-laws. To accomplish this it is scarcely necessary to say that the regulations of an organization should be comparatively simple, easily understood by the average person, and easily obeyed.

Sound Financial Policy

Before establishing a reserve fund, a careful estimate of the liabilities to be undertaken should be made. The best financial minds of the organization, or of the firm back of it, should be enlisted at this point. Then a reserve fund adequate to meet all the responsibilities to be assumed in the immediate future must be established. The best business methods must be adopted in administering the fund. It must be in the hands of persons who possess proved financial experience and also the entire confidence of employer and fellow-employees. From the beginning no shadow of doubt should exist concerning the ability, right purpose, and probity of those who handle the funds of the mutual benefit association.

Types of Organizations

The special kinds of organizations in this field of industrial benefit or insurance depend largely upon the nature of the establishment or field of industry concerned, and upon the particular nature of the benefits provided. In all cases a definite constitution, with suitable by-laws, is necessary; and it must be made to fit the case in hand.

The Pennsylvania Railroad Plan

One of the oldest plans for mutual benefit is that of the Pennsylvania Railroad relief department, which dates from 1886. Employees contribute to the relief fund and are entitled to certain fixed sums when disabled on account of sickness or accident, and to the payment of death benefits to their dependents. The chief reasons for establishing this department, according to E. B. Hunt, one of the officials of the company, were:

1. Accidents under methods of operating railroads at the time were more frequent than at present. The laws regarding accidental injuries being inadequate, the company adopted the policy of furnishing surgical treatment, and in deserving cases paid wages during at least part of the period of disablement, and funeral expenses in case of death. The relief department was organized to enable employees to care more fully for themselves under these conditions. The company paid all of the expenses and deficits of the department.

2. Often when an employee was disabled by illness, his family became destitute and appeals for financial assistance were made to officials and fellow-employees, and even to the public. The object of the relief department was to encourage employees to provide for themselves.

3. As continuity of service is always desirable, and is conducive to efficiency, it was thought that if employees could be induced to become members of the relief fund they would, after contributing to the fund for a period of years, be less likely to sever their connection with the company for trivial causes.

Classes of Membership

There are five classes of membership. The rates of monthly payment which admit to the various classes, the rates of contribution, and the benefits are given in the following table (Figure 27).

Item	First Class	Second Class	Third Class	Fourth Class	Fifth Class
Monthly pay.....	Any rate	\$35 or more	\$55 or more	\$75 or more	\$95 or more
Contribution per month.....	\$.75	\$1.50	\$2.25	\$3.00	\$3.75
Additional death benefit, equal to death benefit of class:					
Taken at not over 45 years of age...	.30	.60	.90	1.20	1.50
Taken at over 45 years and not over 60 years of age.....	.45	.90	1.35	1.80	2.25
Taken at over 60 years of age.....	.60	1.20	1.80	2.40	3.00
Disablement benefits per day, including Sundays and holidays:					
Accident					
First 52 weeks.....	.50	1.00	1.50	2.00	2.50
After 52 weeks.....	.25	.50	.75	1.00	1.25
Sickness:					
After first three days, and not longer than 52 weeks.....	.40	.80	1.20	1.60	2.00
After 52 weeks.....	.20	.40	.60	.80	1.00
Death benefits:					
For class.....	250.00	500.00	750.00	1,000.00	1,250.00
Additional that may be taken.....	250.00	500.00	750.00	1,000.00	1,250.00

Figure 27. Table of Industrial Benefits and Insurance Premiums

Showing the rates of monthly payment which admit to the various classes, the rates of contribution, and the benefits.

The Relief Department

The relief department is under the charge of a superintendent who reports to the general manager. There is also an advisory committee of 8 appointed by the board of directors of the companies associated in the operation of the department; 8 elected by ballot for the membership of the fund, and the general manager who serves as a member ex-officio, and as chairman. The general supervision of the department is in the hands of this committee and it has power to propose and adopt amendments to the regulations, subject to the approval of the boards of directors.

The Bridgeport Brass Company

The Sick Benefit Association of the Bridgeport Brass Company was organized 20 years ago. The officers of the association at each plant of the company—the governing board—are the plant committee, constituted of representatives elected by employees and representatives designated by the

management. When the plant committee is too large, the affairs of the sick benefit association are handled by a sub-committee equally representing employees and management. This joint standing committee chooses from its members the executive officers—consisting of a president, a vice-president, and all committees necessary for the transaction of business connected with the association not otherwise provided for. The company provides a secretary-treasurer who is a member of the governing board.

The president of the governing board at each plant of the company is president of the association for that plant. He has the power to convene the governing board, or call a special meeting of the association when in his judgment the interests of the association demand it. He is required to call a special meeting upon request of 5 members of the governing board or the written request of 21 members of the association.

The Plan in Operation

Meetings of the governing board of each plant must be held monthly at a date decided upon by the plant governing board. This board may remove any officer except the secretary-treasurer, and it may appoint new members to fill any vacancies occurring in the board. The secretary-treasurer is subject only to the control of the company; but if it is decided by a majority vote of the governing board that the secretary-treasurer is not working in harmony with the board, it is the duty of the president to bring this matter to the attention of the company for adjustment.

Any employee 16 years of age and over may become a member of the association but he will not be accepted after 6 months from date of his employment without passing a satisfactory medical examination, the expense to be borne by the insurance company. Part-time workers are not eligible for membership.

Membership in the association ceases when employment terminates.

The dues are 25 cents a month and are deducted from wages. As the company assumes all obligations beyond the monthly dues of each member, there are no assessments.

Benefits

The benefits begin when an association member is incapacitated by sickness or accident, outside his usual occupation. Benefit payments consist of payments equal to one-half the average weekly wage. This average weekly wage is computed upon the first 8 weeks preceding the report of illness, provided that in no week any amount smaller than \$10, nor more than \$28, is to be considered as a basis for determining benefits. Payments commence on the eighth day of disability and continue up to a period of 26 weeks for any one disability. The following example shows how the amount of benefits is determined:

Week Ending	Pay-Roll Record	Basis of Daily Insurance Benefit
January 4.....	\$ 23.45	\$ 23.45
" 11.....	32.61	28.00
" 18.....	31.40	28.00
" 25.....	22.50	22.50
February 1.....	25.75	25.75
" 8.....	8.50	10.00
" 15.....	5.85	10.00
" 22.....	5.00	10.00
	\$155.06	\$157.70

To find the average for the 8 weeks:

$$\begin{array}{r} 8) \$157.70 \\ \hline 19.71 \end{array} \text{ Weekly basis of benefits}$$

To find the weekly benefits:

$$\begin{array}{r} 2)\$19.71 \\ \hline 9.85 \end{array} \text{ Weekly benefits}$$

Dividing by number of days in week gives:

$$\begin{array}{r} 7)\$9.85 \\ \hline 1.41 \end{array} \text{ Daily benefits}$$

If a member is injured in the course of his employment, his benefits are only those provided by the state compensation laws. If he dies his beneficiary will be entitled to indemnity under the life insurance plan of the company, which applies to all members of the association. Members are not entitled to benefits for sickness caused by childbirth, or arising from it, nor for sickness caused by venereal diseases.

When a member has his residence, or is temporarily visiting, out of the bounds prescribed for the visits of the visiting committee, and is sick or disabled and wishes his benefits, he must immediately notify the association by a certificate signed by his attending physician, what is the nature and duration of his illness, the date when his illness began, his condition on the date of the certificate, and that by reason of this illness he is unable to attend to any labor from which he may derive pecuniary benefit. This certificate must be attested by a notary public or justice of the peace, certifying that the physician is a regular practitioner holding a diploma from a regular medical college.

The Visiting Committee

The visiting committee, the chairman of which is a member of the governing board appointed by the president, consists of from 15 to 25 male and female members of the association selected from the various departments of the plant by the chairman. It is the duty of the members of this committee

on receiving notice from the chairman of the illness of a member, to visit that member as soon as possible and report his condition to the chairman. The chairman in turn reports in writing to the secretary-treasurer that the visit was made on a certain date, giving the report of the visitor.

A graduate nurse or physician employed by the company receives daily notice of all cases of sickness from the secretary-treasurer; investigates each case promptly and reports to the secretary-treasurer upon the nature of the illness, its probable duration, and other matters which in his or her judgment would be valuable in the history of the case. The secretary-treasurer also reports cases of illness daily to the chairman of the visiting committee for his action. No member is entitled to benefits until his application has been signed by the nurse or physician, and the chairman of the sick visiting committee. This committee does not visit cases of contagious disease until it receives notice from the secretary-treasurer that all danger from contagion or infection is past.

The president of the association appoints a membership committee of three members of the governing board who are responsible for building up and maintaining a 100 per cent membership in the association.

The White Motor Company

The Employees' Sick Benefit Society of the White Motor Company, Cleveland, is another successful organization. Membership is open to any employee who has been in the service of the company one month, and who pays the initiation fee of \$1. Dues are 50 cents per month. Benefits of \$10 a week are paid during the first 21 weeks of illness (omitting the first 7 days) and \$7 a week for the next 20 weeks. There is a death benefit of \$250. More than half the number of employees are members of the association. The company contributes one-fifth of the amounts paid in by the members

and provides the necessary administrative and clerical assistance.

A feature of the society is the co-operative store conducted by the employees. This store handles food, tobacco, special articles of clothing, tools, and laundry work. Seventy per cent of the profits of the store go to the benefit society; the profits remaining are used for recreational activities of employees. In 1917 the store did a business of over \$50,000 and came out with a net profit of \$5,338.90. The administrative costs of conducting the business were less than 5 per cent of the sales. The company provides the rent, heat, and light, without charge.

An Excellent Plan

An excellent plan for employees' insurance covering service pensions, compensations for accidents, and health, is that established by F. C. Huyck and Sons, Albany, New York, who manufacture woolens. The employees of the company, about 400 in number, come generally from families of railway engineers, firemen, and trainmen.

The health insurance aspect of this plan provides for contributions by employees of 1 per cent of their wages, the rest of the amount necessary being contributed by the company. The benefits consist of 50 per cent of wages paid after the third day for the period of disability arising out of illness or accident outside of work in the plant. Provision is made for free medical, surgical, and hospital treatment, and medicines. Daily clinics free to all members are held at the plant by a regularly employed physician. In case of death, 30 per cent of wages is given to the widow for life or until remarriage; 15 per cent for one child, and 20 per cent for two or more children until they reach the age of 16. The sum of \$100 is given to defray funeral expenses.

Two committees administer the plan, one committee for

men and one for women, consisting of a representative chosen by the employees and another selected by the company. The third member of each committee is the secretary of the concern.

The cost of the plan in 1916 after 5 years' operation, was \$14,282.46, or 1.6 per cent of the pay-roll. Disability and death benefits practically covered the 1 per cent wage-contribution of employees. Speaking of the success of the plan Edmund N. Huyck says in the *American Labor Legislative Review*, March, 1917:

There is not the slightest question in our minds but that, except that it does not provide for those who leave the company's employ, the plan has been in every way successful, that it has given us steadier, healthier, more contented employees; that it has made us more alive to the need of healthful, sanitary working conditions; and that it has been worth to our company far more than it has cost us.

The American Chain Company

An unusual plan of financial and other aid to workers is that recently adopted by the American Chain Company. The plan operates through an employees' society and aims to provide old-age benefits, assistance in case of illness, death, total or permanent disability of a member, and to furnish medical care during maternity or illness in the employee's family.

The employees' society is governed by a board of managers, consisting of a chairman, vice-chairman, secretary-treasurer, and four other members. All are elected by members of the employees' society except the secretary-treasurer and two other members, who are nominated by the officers of the company. Each elected member holds office for a year and may be re-elected. Membership in the society is open to every employee in the company's office or working plant.

There is an initiation fee of \$1 and dues of 50 cents per month. The company meets deficits not covered by such fees and dues.

In case of sickness or temporary disability, members will receive \$2 a day beginning with the fourth day, for a period depending upon the length of service of the employee. In the event of death \$100 will be paid to the beneficiary of the employee irrespective of the period of service of the deceased. The company also makes certain insurance compensation to the wife and dependents, the amount being in accordance with a scale set for various periods of service. For example, if a married man, who has been employed one year or less, dies, his widow will receive \$1,000; each of his children under 16 or at any age, if entirely dependent, will receive \$2,000; so will each dependent brother or sister; and \$500 will go to a dependent father or mother.

If a man was employed for three years, the insurance will be \$1,300 in addition to the amounts for dependents. The amount of insurance increases up to ten years of service.

Special provision is made for male employees who reach the age of 65 and for women who reach the age of 55, if they have been with the company for 20 years or more. These employees enter what is called a reserve force and receive a yearly allowance of $1\frac{1}{2}$ per cent of the highest wages earned during any consecutive 10-year period for the total number of years they have been with the company.

Another feature of the plan is the provision for an annual vacation with pay for all members of the society. A bureau assists employees in finding suitable vacation places.

In the case of expectant mothers the company will provide medical and nursing care for two weeks prior to the birth of the child and as long thereafter as necessary. All the necessary expenses of the doctor and nurse will be paid by the company, and in addition, a cash payment of \$25 will be made

to the mother for use in buying clothes and other necessities for the child.

Free legal advice for the employees and their families is also part of the plan.

The General Electric Company

Another plan well worth mentioning is that of the General Electric Company, Pittsfield, Massachusetts, where the association in 1916 had 3,000 members and a surplus of \$5,000. The by-laws of the association limit the surplus to \$300 in any one section, and to \$1,000 in the death benefit fund. Collections stop when the funds reach this point. In case of sickness, \$6 a week is paid for 14 weeks and upon death, \$200 is paid, half of which is given by the company.

An Unusual Type of Plan

A type of association which is unusual is that conducted by the Flint Vehicle Factories Mutual Benefit Association. Several factories are members in this association, which makes its payments in addition to workmen's compensations provided by law. The city of Flint has a working population of over 15,000. The plan requires no medical examination of members. Dues are deducted from wages by the constituent companies for no more than 18 weeks in a given year. When this limit is reached the case goes to the Manufacturers' Association which co-operates with the association.

The Pennsylvania Agricultural Works

The male white employees of the Pennsylvania Agricultural Works may join the Farquhar Beneficial Association (organized in 1889) by paying dues of 14 cents per week. Members are entitled to \$4 per week for the first 26 weeks and half that thereafter. Upon a member's death, \$150 is

paid within 60 days to his widow or his heirs. A man may continue his membership even if he leaves the company.

The Dodge Mutual Relief Association

One of the best conceived plans for a mutual relief association is that of the Dodge Manufacturing Company, Mishawaka, Indiana, prepared by W. L. Chandler who has given the plans throughout the country much study. The plan of the company is so good that it is reprinted in full in Appendix F for the suggestions it offers readers. The Constitution and By-laws of the Benefit Association of Cheney Brothers, South Manchester, Connecticut, as well as the forms used, and the regulations as to reunions are given in Appendix F.¹

Co-operative Associations—Employees

Akin to the mutual benefit associations are the co-operative associations, of which there are many varieties. These are often the outgrowth merely of informal buying clubs, formed to enable members to take advantage of quantity prices. They may enlarge their operations and develop co-operative savings funds, which eventually merge into the mutual benefit association already noticed.

Aid from Employers

These co-operative associations are chiefly the work of the employees themselves, but in some cases the principle has

¹ Among other successful plans, the following may be noted: Hercules Powder Company, Wilmington, Del.; Farr and Bailey Company, Camden, N. J.; Cleveland Hardware Company, Cleveland, Ohio; Keuffel and Esser Company, Hoboken, N. J.; Fitchburg and Leominster Railway Company, Fitchburg, Mass.; Scranton Railway Company, Scranton, Pa.; Clifton Silk Mills, Union, N. J.; United Shoe Machinery Company, Beverly, Mass.; Procter and Gamble Company, Cincinnati, Ohio; Celluloid Company, Newark, N. J.; Eastman Kodak Company, Rochester, N. Y.; Pierce-Arrow Motor Car Company, Buffalo, N. Y.; Lehigh Valley Transit Company, Allentown, Pa.; Remington Typewriter Company, Ilion, N. Y.; Simonds Manufacturing Company, Fitchburg, Mass.; Stevens and Company, Incorporated, Providence, R. I.; Endicott and Johnson Company, Endicott, N. Y.; Bethlehem Shipbuilding Company, Bethlehem, Pa.; Dodge Manufacturing Company, Mishawaka, Ind.; Solvay-Process Company, Syracuse, N. Y.; Union Electric Light and Power Company, St. Louis, Mo.; Baltimore and Ohio Railroad Company, Baltimore, Md.; Pittsburgh Coal Company, Pittsburgh, Pa.; Swift and Company, Chicago, Ill.; Cincinnati Milling Machine Company, Cincinnati, Ohio; United States Steel Corporation.

been utilized by employers who desire to help their workers to help themselves.

A co-operative bank is one of the features of the Plimpton Press, Norwood, Massachusetts. There are over 400 depositors. Collections are made in each department weekly as soon as the paymaster has been around, thus making it easy for employees to lay aside sums from 10 cents up. Many save money for their insurance, rent, and other bills in this way. "In a good many cases," says Mrs. Williams, who is in charge of the work, "we have been able to make arrangements, where workers have fallen into the hands of loan sharks, by means of weekly deposits in the bank to pay off these debts and thus teach the worker something of thrift in savings for future debts." The bank here makes loans on proper security but does not encourage short-time loans.

Savings Funds

In order to encourage the spirit of thrift among its employees the Westinghouse Electric and Manufacturing Company has established a savings fund, which offers facilities to the employees for the handling of their savings accounts. This fund is open to any employee of the company wherever he may be located, and he may become a depositor at any time and discontinue at any time. The amount of the deposit cannot be less than 10 cents and may be any multiple thereof, but the depositor is limited to one account, the amount of which in any one year cannot exceed \$500. The plan is intended to encourage the employee to form the habit of saving his earnings. When he has developed the habit he should handle his own finances.

Interest is paid on deposits at the rate of $4\frac{1}{2}$ per cent and is credited semiannually. The Westinghouse Company acts as a trustee and guarantees the deposits and interest. The rules provide that an amount of \$100 or less may be

withdrawn without notice, but an interval of two weeks must elapse before subsequent withdrawals can be made; and for the withdrawal of sums amounting to over \$100, notice of one week must be given.

An auditing committee not to exceed 7 persons, elected by the depositors from among their own number, is given an opportunity to examine the condition of accounts at the semiannual interest period. The findings of this committee are published.

Selling Stock to Employees

There is one striking instance of co-operative activity carried to the point of actual ownership of an industrial enterprise by the workers themselves. The Co-operative Boot and Shoe Company of Brockton, Massachusetts, was established a few years ago by a large number of experienced shoeworkers, out of several factories, who decided to pool their savings and their experience to build up a new factory on a co-operative basis. This company has had a very successful experience from the beginning. Similar examples, at least in the United States, are very few.

On the other hand, ownership of stock in an enterprise by employees is often found. In many industrial concerns employees are encouraged to buy shares of stock. The United States Steel Corporation has had a remarkably successful experience with selling stock to employees. On a smaller scale, the experience of the San Diego Consolidated Gas and Electric Company in California, has been similarly successful.²

² Among the more prominent concerns which sell stock to employees are: Procter and Gamble, Cincinnati, Ohio; American Sugar Refining Company; Midvale Steel and Ordnance Company; Swift and Company; American Multigraph Company; United States Rubber Company; Goodyear Tire and Rubber Company; International Harvester Company; B. F. Goodrich Company.

CHAPTER XXIV

FINANCIAL AIDS—GROUP INSURANCE

Gradual Development of Insurance Idea

Insurance, the second type of financial aid for the worker, is not a new idea in industry or in community action. For centuries the notion of protection through a common pool of funds established against hazards of various kinds, has been familiar and generally accepted as sound business practice. This impulse to make such provision is what distinguishes the savage from the civilized man. Capital became possible only when men exerted themselves for needs beyond the immediate. The power to look ahead is one of the most precious of all human assets, and the encouragement of such provision is a privilege as well as an obligation. In the United States, however, the safeguarding of the future of the worker through large-scale and co-operative effort between the management and the working force is comparatively new.

Early Mutual Insurance for Workers—Defects

There has always been some effort, among various groups of the working population, to make provision for aid in case of death, and to a slight degree to provide against sickness. This has been especially noticeable among the immigrant groups who have brought over with them their custom of mutual insurance. Fraternal orders and lodges have for long been a familiar feature of early enterprises among the immigrants. Many enterprises of this sort, however, have gone on the rocks because of financial incompetence. Industry has felt the reaction of such failures through the demoralization which such a catastrophe always causes among its victims.

Range of Mutual Insurance in Industry

The movement for mutual protection grew so rapidly that many new demands and elements had to be considered. The field of mutual insurance came to cover in modern industry exigencies such as the following:

1. When there is temporary impairment of the capacity for work, and, with this, of the earning power, whether this comes about through causes relating to the individual (subjective causes) or through material conditions, namely:
 - (a) Through sickness (sickness insurance).
 - (b) Through accident (accident insurance).
 - (c) Through child-bearing and what follows it (maternity insurance).
 - (d) Through poor conditions of the labor market (unemployment insurance).
2. When there is permanent impairment of this working and earning power, which may have its causes:
 - (a) In the after-effects of sickness or accidents (invalidity insurance).
 - (b) In advanced age (old-age insurance). This permanent incapacity for earning may be either partial or total.
3. When there is complete destruction of the personality—that is, when death comes, in so far as there is by reason of death a financial loss suffered:
 - (a) As a result of the expenditures for the burial (burial-money insurance).
 - (b) For the surviving (widow's insurance).
 - (c) For the surviving children (insurance of orphans).¹

¹ See "Social Insurance," by Isaac M. Rubinow.

Legislative Control

Obviously, a movement so vital to the well-being of a vast number of workers could not long be left in the hands of untrained or unfit persons, the consequences of whose maladministration had such wide-reaching effects. Legislation stepped in to provide a certain measure of safeguard. This helped, although it did not go far enough. Nobody questions, however, the value of these provisions or the benefit to industry itself in having these stabilizing and comforting measures carried out.

How Employers Can Help Mutual Insurance

The attitude of managers has always been friendly to enterprises of mutual aid and protection. In recent years, moreover, there has been a commendable advance from friendly passive interest to active co-operation. It has been found desirable not only to encourage mutual benefit activities, but also to give them the needed assistance of expert help, and even money, to make them strong and effective.

Lack of accounting knowledge, to say nothing of actuarial skill, drove many benefit societies, even though honestly conducted, to the wall. It could not be expected of workmen not used to financial matters that they should foresee the consequences of bad financial methods. This financial skill was something which a big business enterprise could supply or secure. The advice of the employer has saved many a workman from the total loss of his contributions. The employer's bookkeeper, or treasurer, was able to correct glaring bad practice, and thus salvage something in time for those who were giving up a part of their weekly earnings to safeguard their future.

Savings banks and regular insurance companies have done much good educational work. But in addition to all the

millions of people they reach, there was and is yet much room for insurance enterprise, particularly on the part of industry.

Why Industry Has Taken Up Insurance

The truth is that the employer has come to concern himself with the protective activities of his employees in sheer self-defense; and it may be said that such interest on his part has been generally welcomed and appreciated. We have now reached the stage of large co-operation between industrial organizations and their employees in the work of maintaining various kinds of insurance activities. We may safely say that such co-operation is still in its initial stages; but there will be rapid and interesting developments in the near future, because nothing conduces so much to personal contentment and attention to one's work as the feeling that provision has been made against the uncertainties of life.

The opportunity to encourage as well as to strengthen self-help projects on the part of large numbers of men is singularly abundant in modern industrial establishments. To the credit of their managers it must be said a fair number have not let the opportunity slip. To help a man save against the future, and to do so in some co-operative plan with his fellows, is about as genuine a service as one man can render to another.

Self-Help Among Workers—Benefit to Employees

We stress the point of self-help. Insurance and other benefit projects must be conceived in the spirit of personal initiative by those who are to be the beneficiaries. There is no charity here. Co-operative help is among other things a kind of insurance against needing charity. So a large part of the responsibility for its conduct must fall on its membership. It is their enterprise. Others, such as the employer, or the industry, if it is involved, may supply needed expert

assistance and safeguards, also contributions toward the common fund; but in essence, the major burden of maintaining mutual benefit projects should always be shouldered by the membership as a whole. Otherwise the great educational values in these projects will be lost.

It is true that the public, the industries, and various agencies of public or private nature may be required more and more to undertake at least in part the task of insurance of one kind or another. That will not, however, lessen the need for mutual insurance undertaking within an industrial organization. On the contrary, there may be a new stimulus for such work.

Whichever part supplies most of the funds and whatever the proportion of respective contribution may be, the fact remains that large employing organizations have a very direct interest in the nature of the insurance that is carried; and it is also true that those associated in such organizations have enough in common to make a mutual benefit society inevitable within the organization.

Group Insurance

Thus far, we have already considered two sorts of insurance: the mutual aid insurance among workers, controlled and participated in only by the workers, and industrial insurance, in which industry took an active hand. We shall now consider group insurance, which goes a great deal farther than either of the others, by a mutual organization of employer and employees. Briefly stated, group insurance is life insurance maintained by the employer for the employee. The employer assumes the small cost of this insurance, usually running from 1 to 1½ per cent of what he pays out in the form of wages. This form of insurance has developed within the last decade and is now found in a large number of establishments in this country. The idea is so appealing, its under-

lying principle so sound, and its cost so low, that we may expect to see it expand greatly in the immediate future. The progress of the movement has been greatly helped by the attitude of the regular insurance companies of the country. It is estimated that at least 40 per cent of the persons now included in the group insurance policy, perhaps a greater per cent, would never buy life insurance of their own accord. Thus the field of activity of the insurance companies is correspondingly widened.

The Principles of Group Insurance

The underlying principle of this form of insurance is that the employer by a slight added cost to his pay-roll may act for all his employees and give them security for their future. None of their time or energy is consumed in sharing in the management of a benefit fund. They become more efficient in their daily work, more permanent in their employment, and more loyal to the firm. It is, therefore, good business for the employer to assume a responsibility that looks toward the time when employment ceases.

Advantages and Disadvantages

The advantages of this form of insurance are many and only the more evident need be enumerated.

The plan accepts a group of employees without excluding any on account of individual non-insurability. It means greater efficiency in production because it leads to a more careful selection, through a medical examination when necessary, of the employees of an establishment. It is the cheapest form of insurance, as a single blanket policy covers an entire group of carefully selected people and for a limited time only. On the other hand, it frequently gives the benefit of insurance to persons who would not pass the usual life in-

insurance medical examination. It creates a friendly relation between employer and employee. It frees society from some part of the cost of charity relief. It looks beyond the employee to the welfare of his dependent family. It throws the burden of insurance, in some measure, on industry itself.

The disadvantages of the group insurance are not, perhaps, so obvious. First, it may deprive the workman of the incentive of acting for himself by insuring his own life, contributing to a benefit fund, or establishing a bank account. It is operative only for groups of 100 or more. It fails to meet the contingencies of sickness and accident. It compromises the independence of the worker by the loss of insurance in leaving his position. It may, it is claimed, impair the power of collective bargaining. It entails the danger of causing the workman to feel that the premium comes out of his own wages.

But the advantages seem to outweigh the disadvantages. The great underlying result to be desired is the security of industry and of the industrial worker. For generations it has been recognized that financial insurance is the best form of security; the new plan makes such insurance available to greatly increased numbers of people.

How the Plan Has Operated

On every hand we find evidence of more than satisfactory results in the working out of the group insurance plan. The advantages of the plan, as presented above, have been observed in scores of industrial organizations that have adopted the system. From the standpoint of the employer it has reduced labor turnover.

The Cincinnati Planer Company, for example, reduced its labor turnover from 422 per cent in 1916, to 131 per cent in 1918, by the adoption of group insurance.

The Victor Talking Machine Company tried group insurance for a limited number of its employees in 1913, with

such success that the company now carries over \$5,000,000 of insurance for more than 7,000 employees.

The Packard Cleveland Motor Company has recently adopted group insurance. In regard to this the general manager of the company wrote the author as follows:

The writer had a splendid opportunity to observe the value of group insurance while with the Burroughs Adding Machine Company, and we feel confident the results in stabilizing labor, attracting and retaining employees of the better grade all the way through the organization, etc., will repay us for the outlay, which, by the way, is surprisingly low.

Deere and Company, the great plow manufacturers, have experimented with group insurance for several years and have taken out insurance covering all the employees in their 29 factories.

The Crane Company, another great manufacturing concern, covers its 8,500 employees with an insurance contract of \$7,000,000.

Life insurance has been taken out by the E. I. Du Pont de Nemours and Company, Wilmington, Delaware, for about 25,000 employees, including those of some of its close subsidiaries. While all the associated companies are not covered by this policy, it is expected that provision will soon be made for these others also. All charges are paid by the company. The individual minimum insurance is \$1,500, which is payable to the employee's beneficiaries. The insuring of the workers takes the place of the former plan of the company, under which they gave to all the employees a sum equal to their total savings.

Officials of the New York Shipbuilding Corporation, Camden, New Jersey, say that their new plan of group insurance has had a remarkable effect in stabilizing labor. Under their plan, insurance of \$500 is given each worker for one

year of service, and \$100 for each year thereafter for 17 years, making a total insurance of \$2,200. The policy becomes void upon termination of employment. Up to the time this was written 26 claims aggregating \$33,900 had been paid.

One of the latest of our great industrial concerns to adopt group insurance is the American Woolen Company, whose announcement is of interest here.

ANNOUNCEMENT

The American Woolen Company announces that on June 16, 1919, it will inaugurate a system of group life insurance under which *every* employee of the American Woolen Company, including both the selling and manufacturing departments, and by that we mean *everyone*, including men, women, girls, boys, and including the officials, will receive absolutely free of cost to them, the company bearing the entire expense, a policy covering their lives, of from \$750 to \$1,500, depending upon the length of service of the particular employee. The schedule of amounts is given below:

Those employed for a period of less than one year.....	\$ 750
Those employed for a period of one year and less than one year and a half.....	850
Those employed for a period of one year and a half and less than two years.....	950
Those employed for a period of two years and less than two years and a half.....	1,050
Those employed for a period of two years and a half and less than three years.....	1,150
Those employed for a period of three years and less than three years and a half.....	1,250
Those employed for a period of three years and a half and less than four years.....	1,350
Those employed for a period of four years and less than four years and a half.....	1,450
Those employed for a period of four years and a half and more	1,500

Not only is the original premium paid by the American Woolen Company, but the entire expense thereafter is borne by it. Under

no circumstances does any employee pay even one penny of the cost of maintaining the policy on his or her life.

Any employee who happens to be absent on June 16, 1916, will be included in the plan outlined above upon his or her return to work, provided he or she is or has been prior to June 16, 1916, on the pay-roll of the mill in which he or she is employed. Persons entering our employ after June 16, 1916, will not be entitled to the above privileges until he or she has been for six months continuously on the pay-roll of the mill in which he or she is employed. There is to be absolutely no cost to any employee. No medical examination is required. These benefits will be given *in addition* to any other benefits provided by the Compensation Law of the state.

Certificates of insurance will be provided for each employee just as soon as those certificates can be prepared by the insurance company.

AMERICAN WOOLEN COMPANY,
Wm. M. Wood, President.

Boston, Mass., June 11, 1919.

Synopsis of a Group Insurance Policy

The outline of the group insurance policy issued by one of the large insurance companies of this country may be presented here as an explanation and summary of the idea involved in group insurance. In a synopsis issued by the company it is stated that:

To be insured on this plan a group must represent the employees of one person, firm, or corporation and number not less than one hundred. The policy is purchased by the employer and the employer is responsible for the payment of premium.

A group may consist of all employees in active service who are more than 15 years of age; or, if so desired, may comprise less than all, provided exclusion is in accordance with some definite plan, such as length of service, amount of salary, etc.

The amount of insurance on each life may be made uniform or may vary according to some definite plan. The

maximum amount accepted on any one life will be \$3,000 and the minimum \$250.

New employees between the ages of 15 and 65 may be subsequently added to the group, and the amount carried on any employee in good health may be increased.

The group policy will be issued without medical examination of the individual employees (unless required by law) but evidence of insurability will be required of new employees before they are added to the group.

The policy will be issued as a one-year term policy, renewable at the end of each year for the ensuing year by the payment of the premium for that year.

Premium rates will depend on the ages and occupations of the individual employees. They can be quoted when accurate information in this respect is furnished to the company. The total premium payable by the employer is the sum of the premium for the insurance on the individual employees. It will be noted that on this plan the individual premiums, being based on attained ages, increase from year to year. Under normal conditions, however, the total premium is not likely to vary greatly, because the changes constantly occurring in the composition of the group tend to keep the average age, and consequently the average premium, about the same.

Premiums during the first five-year period will be computed upon the basis of a table of rates written in the policy. But the company reserves the right, at the end of each five-year period, to change the rates upon the basis of which subsequent renewals may be effected.

Annual dividends, as ascertained and apportioned by the company at the end of each policy year, are payable under a group policy, thus reducing the net cost of the policy.

A prominent feature of the group policy is a provision that if any male employee less than fully 60 years of age shall become totally and permanently disabled, no premiums shall be payable thereafter on account of his insurance, and payment of such insurance shall be made in instalments over a period of five years, such payments to begin six months after the disability occurs.

Immediately on receipt of due proof of the death of any

employee insured under the group policy, the insurance on such life will be paid in one sum, or in twenty-four monthly instalments over a period of two years, or in fifty-two weekly instalments during one year. Should payment be made in instalments, each instalment will be increased by such dividend as may be apportioned by the company. Payment will be made to the beneficiary named by the employee.

Certificates will be issued to the individual employees, showing the amount of insurance on each life and the name of the beneficiary to whom the insurance would be paid in event of the death of the employee. The beneficiary named on the certificate may be changed as desired by the employee.

The insurance carried on any employee will terminate with the termination of employment, except that if the employment is terminated on account of total disability, the employer may continue the insurance during such disability by the payment of the premium. A refund of any unearned portion of a premium on account of the termination of employment will be made in event of such termination. In event of termination of employment where an employee has been insured for at least one year, he may convert his insurance into a policy on any of the company's regular plans without medical re-examination and at the then current rates of the company for such a policy, and the insurance on his life may thus continue in force.

CHAPTER XXV

FINANCIAL AIDS—PROFIT-SHARING, ETC.

Service Annuities, Pensions, and Service Bonuses

Before we discuss profit-sharing proper, the last consideration in financial aid, we shall consider several other things which are not profit-sharing but which are akin to it: service annuities, pensions, and service bonuses.

Among methods of stabilizing the working forces in industry, plans for pensions and service annuities are a comparatively recent development. Employers are beginning to see that the loyal service of those who practically spend their lives with a concern and, in old age, have little or nothing to fall back upon for support, ought to be rewarded. The American Smelting and Refining Company and its subsidiaries, for example, have established a pension system "as an evidence of their appreciation of the fidelity, efficiency, and loyalty of its employees." This is the general motive in pension plans.

Solvay Process Company's Pension Fund

Space here does not permit of extended discussion of the subject, but we may well point out the important features of a few typical plans. The Solvay Process Company has had a plan since 1908 and its benefits are intended "for such of its men as have been incapacitated by reason of old age, sickness, or accident after long service." The size of the pension depends chiefly upon the amount received by the beneficiary during the ten highest paid years of his service. Pension payments are made from a fund originally set aside out of profits and kept in a separate account. This fund has been increased

from month to month by making payments to it of a certain number of cents per ton of product. All income from the fund is credited to it, while expenditures and pensions are charged against it

The American Sugar Refining Company

The American Sugar Refining Company has set aside \$300,000 for its pension fund and additions are made from time to time. Male employees over 65 years of age and women of 60 and over, are retired at the option of either the company or the employee. The amount of the pension is equivalent to 1 per cent of the average annual wage or salary during the 10 years preceding retirement, multiplied by the years of service, but no pension may exceed \$5,000 per year to any individual, and no pension after a service of 25 years is to be less than \$20 per month. Officers and employees of the company after 30 years' service (25 years for women) are permitted if they desire it, to retire on this pension-basis whether they have reached the age of 65 or not. Administration of the plan is in the hands of a pension committee.

Swift and Company

Swift and Company have created a fund of \$2,000,000 for pensions, administered by a pension board consisting of 5 members who are officers or employees of the company. These members are appointed annually by the directors to serve 1 year. The board elects from its members a chairman and a secretary. The *member* of the company is ex officio member of the fund.

Employees who reach the age of 60 (women 50) and have served continuously for 25 years or longer may be pensioned at the discretion of the board; those who have served the number of years mentioned above and have reached the age

of 65 (women 50) are entitled to pensions. An employee who has a record of service for 15 to 25 years or more and is permanently incapacitated for work through no fault of his or her own may be pensioned at the board's discretion. Employees who entered service after August 1, 1916, and who were over 40 years of age at the time are ineligible.

The pension of employees regularly retired on account of age and length of service, and of employees retired on account of permanent incapacity for work prior to reaching the age of retirement (if they have served 25 years or longer) consists of one-half of the average annual salary or wage for the 5 years preceding retirement. The pension for those who are permanently incapacitated and have been in service for 15 years or longer up to 25 years, is $1\frac{1}{2}$ per cent of the average annual salary or wage for the 5 years preceding retirement for each year of continuous service. In no case is the pension to exceed 50 per cent of such average salary or wage or the maximum pension of \$5,000 per year. The minimum is \$240 per year.

The plan contains special provisions for widows and dependents of deceased employees. The widow (or if no widow, then the children under 18 and unmarried) of an employee whose term of service was 15 years or more up to 25 years, who was in the service of the company at the time of his death, may receive a pension equal to $\frac{3}{4}$ of 1 per cent of the average annual salary or wage of the husband (or father) for the 5 years prior to his death for each year of continuous service.

If the employee has been in service continuously for 25 years or more, such pension is to be $\frac{1}{4}$ of the average annual salary or wage of the husband (or father) for the 5 years prior to his death. In no case may the pension exceed 25 per cent of such average salary or wage, nor may the maximum pension be more than \$2,500 a year. On the remarriage of

the widow her pension ceases, but one-half of the pension may be paid to her children if they meet the above requirements. As each child reaches the age of 18, or marries, his or her interest in the pension ceases.

If employees are under 21 years of age, the service records for computing pensions do not begin until they reach that age.

The widow of an employee who married him after he reached the age of 50, or the widow of a pensioner who married him after he was pensioned, or their children, are not entitled to a pension. Pensions may be suspended or canceled for misconduct, or other cause sufficient in the judgment of the board to warrant such action. No contractual rights are given employees by this plan and the company may discharge an employee without liability other than for salary or wages due and unpaid.

One who has been pensioned because of disability, may be required to re-enter active service of the company if, in the judgment of the board, the condition of his or her health warrants such action. In the event of failure to do so on proper notice, the pension may be suspended or terminated.

The Bell Telephone Company

In 1916, the Bell system of telephone companies set aside \$9,000,000 to carry out a plan of benefits for its employees. Of this fund \$3,000,000 was devoted to the New York Telephone Company, the Bell Company of Pennsylvania, and the Chesapeake and Potomac Telephone Company.

Pensions are given to employees who have been in service for 30 years and are between 50 and 55 years of age. Those in service 25 years and who are between 50 and 60 years old and those in service 20 years and who are 60 years old, are also eligible for pensions.

Provisions are made for accident payments and in case of death from accident the plan provides for payment to

beneficiaries of three times one year's wages regardless of liability or length of service. Pensioners may engage in business which is not prejudicial to the company's interests. (For typical by-laws, forms, etc., of benefit and pension regulations, see Appendix G.)¹

Service Rewards

Outside of pension arrangements, various plans have been developed for rewarding promptness and steady attendance and continuous service of employees. Space here will permit of only two examples. The International Silver Company, Meriden, Connecticut, gives employees a service reward of 5 per cent of the total wages earned by them each week if they fulfil the following conditions.

1. Getting to work promptly at starting time.
2. Working the full number of hours laid out for the job or department.
3. No absences during the week.

If a person is late or absent during any week the service reward for that week is forfeited. A slip is placed in the regular pay-envelope each pay-day showing when the service reward is due for perfect attendance during the previous week. The money for the reward is paid on the regular pay-day during the fourth week thereafter; but no reward is paid to one who leaves the company's employ, i.e., a person leaving before the four weeks are up is not entitled to the reward.

¹ Other concerns having plans for pensions are: General Fire Extinguisher Company, N. Y.; R. Wallace and Sons Manufacturing Company, Wallingford, Conn.; Procter and Gamble Company, Cincinnati, Ohio; Vermont Marble Company, Proctor, Vt.; B. F. Goodrich Rubber Company, Akron, Ohio; International Silver Company, Meriden, Conn.; Lehigh Valley Transit Company, Allentown, Pa.; Pittsburgh Coal Company, Pittsburgh, Pa.; Dennison Manufacturing Company, Framingham, Mass.; N. O. Nelson Manufacturing Company, St. Louis, Mo.; International Harvester Company, Chicago, Ill.; John B. Stetson Company, Philadelphia, Pa.; Talbot Mills, North Billerica, Mass.; Edison Electric Illuminating Company, Brooklyn, N. Y.; Crane Company, Chicago, Ill.; Sherwin-Williams Company, Cleveland, Ohio; United States Steel Corporation, New York City, N. Y.; Cleveland Foundry Company, Cleveland, Ohio; Hercules Powder Company, Wilmington, Del.; United States Rubber Company.

The company also has an Annual Service Reward paid annually after July 1, 1917, as follows: Those who continue in employment for 1 year or more are paid 25 per cent of the total weekly service reward paid them during the year.

2 years or more.....	50 per cent
3 " " " 	75 " "
4 " " " 	100 " "

The record of continuous employment is broken by:

1. Discharge.
2. Leaving employment for any reason.
3. Permanent lay-off due to lack of work.

How the Plan Works

As an instance of how the plan works, the company gives this example:

If John Robinson has a record on December 1 of any year of not being late or absent for 48 out of 52 weeks of the year just passed and has averaged \$15 per week during the year, he will have been paid a total of 75 cents per week for 48 weeks or \$36 during the year. If he has been continuously in the employ of the company for more than 1 year from July 1, 1917, he will receive an additional reward of 25 per cent of the \$36 paid him during the year, or \$9. If employed for 2 years he will receive 50 per cent of \$36, or \$18, additional reward, and so on.

The Wage Bonus

Another plan, called a wage bonus plan is in its third year of operation at E. A. Mallory and Sons, Incorporated, hat manufacturers at Danbury, Connecticut. Those who have been in the company's employ (including heads of departments) one or two years receive 5 per cent of their year's

pay, while those who have been with the company more than two years receive 10 per cent.

The Nature and Growth of Profit-Sharing

Profit-sharing proper means the apportioning to the worker, in addition to a fixed wage or salary, some definite part of the excess profits of a concern, above a fair return to capital. In a large sense the workman has always been employed under a profit-and-loss system. When an industry has been prosperous, it has usually provided full-time employment and good wages; when it has failed to be prosperous it has afforded but part-time employment and low wages. Thus the condition of the worker has depended constantly upon the condition of industry.

It has come to be recognized more and more in recent years that there are three parties to industry. These are:

1. The stock-holding group, which furnishes the plant and the capital necessary for its operation.
2. The administrative and selling group, which comprises all officers, accountants, salesmen, and others in various branches of managerial and business activities.
3. The manufacturing group, which includes all the factory workers in an industry.

The modern demands for co-operation, fair play, and a just division of the rewards of labor, call more and more emphatically for an equitable division of the profits of industry among these three groups.

History of Profit-Sharing

Profit-sharing in this country began about twenty years ago when the N. O. Nelson Company of St. Louis, the Procter and Gamble Company of Cincinnati, and the Bourne Mills

of Fall River, Massachusetts, showed that it could be successfully carried out. But with a few notable exceptions profit-sharing has not been successful in the United States until recently. In England greater success has been achieved. Americans made many attempts to emulate the English example in the period after 1870; but they made the mistake of supposing that profit-sharing would solve existing labor difficulties.

In 1899, N. P. Gilman, in his work on profit-sharing, named 32 American firms as having at that time undertaken to establish some form of profit-sharing. In 1892, the Association for the Promotion of Profit-Sharing was formed. But no great advancement was made until recent years, in which a marked revival of interest in the subject has arisen. Public, scientific, and trade periodicals have lately published many discussions on the subject. Employers are giving the matter close study. Public and private agencies as well as individuals have conducted investigations into its practice and possibilities.

As a form of gain for the worker, profit-sharing, in the opinion of some, may take the place of other forms of provision for the present and future benefit of the worker; but it involves elements of difficulty, especially in considering the responsibility of the profit-sharer in management. This will be touched on later in a discussion of the plans now in operation.

It would not be easy to state the chief causes that made the progress of the movement for profit-sharing in this country exceedingly slow for 30 or 40 years. Among the causes might be mentioned the conservatism of large industrial concerns in methods of paying the worker, and their unwillingness to adopt what might seem to be a problematic rate of payment, to admit the worker to some degree of ownership or management in manufacture, or to reduce systematically the profits of invested capital. Probably many trials of attempted

profit-sharing have failed because too much was expected of the new system and insufficient investigation and preparation had been made before adopting it. Its limitations should be entirely understood, and it should not be made a recompense for a low wage. Neither should there be any fear that it will lead to the control of an industrial establishment by the body of employees.

Opinion Growing in Favor of Profit-Sharing

As a result of more careful study of the subject in recent years and a wider dissemination of information in regard to it, profit-sharing is now attracting the attention of the best minds in American industry. It appears clearly to be a sound method of promoting co-operation between employer and employee and of increasing permanently the interest of the worker in his job. Clearly, it will promote labor stability, reducing the turnover that affects industry not merely year by year, but day by day. It will bring out the best that is in the workman, not only to do his daily task well, but to share in some degree in the thinking and planning that must be behind every industrial enterprise. The workman becomes not a capitalist, but a co-operator in industrial enterprise.

A Succinct Statement of the Case

Henry S. Dennison, President of the Dennison Manufacturing Company, Framingham, Massachusetts, states the matter succinctly in *Factory* for March, 1918:

Studies in the field of industrial relations can well be confined to bettering the conformity of wage to effort and to worth; to increasing the opportunities of the employees to express their ideas as to all conditions of their work; and to the establishment of a social relation worthy of the name between manager and worker. If profit-sharing studies are confined to the logics of control and of surplus earnings,

a great contribution toward social advance may be made before long.

Profit-Sharing Defined

In profit-sharing, pay is really divided into two portions—a major portion which is fixed in advance, and a minor portion which varies according to the profits of an entire concern or a division of it. The terms “general” or “unit” or “individual” profit-sharing are used according as the division is made from the general or total profits of an industry, from the earnings of a department, or from the individual worker’s own efforts. An example of the last kind is the percentage of his sales which a traveling salesman receives in addition to his fixed salary. In industry, however, we shall be most concerned with general profit-sharing.

Bonuses Not Profit-Sharing

An increasingly large number of employers are paying a periodic bonus, computed on a certain percentage of wages. Clearly this is not profit-sharing, since it is based on wages and not on profits. Some firms pay a bonus at the end of each year, with the understanding that it shall be based in part on the earnings of the firm. Other firms pay a bonus without previous announcement. Such plans lack the essential of profit-sharing—the division of a fixed percentage of the profits of industry, known in advance and without regard to the daily earnings of the worker.

Surplus profits, above a fair return to capital, should be apportioned between two groups of employees, the executive or managerial group, and the industrial group usually implied in the term “workers.” Since it is not easy to determine a “market” salary for the first group it is easier to include it in a profit-sharing system, after establishing a nominal rate of pay. Thus we may expect the system to be applied most

readily and generally to the executive group in an industry. In the case of the worker in the industrial plants the system can be most easily applied to small groups.

Profit-Sharing in Successful Concerns—A. W. Burritt Company

How a number of large and well-known concerns conduct their profit-sharing systems is of interest at this point.

The following statement of the A. W. Burritt Company, of Bridgeport, Connecticut, to its employees, showing the liberal attitude of the modern employer, and the profit-and-loss sharing contract of the company with its employees, is well worth close study.

TO OUR EMPLOYEES, AND TO ANYONE INTERESTED IN INDUSTRIAL CO-OPERATION

From the commencement of our business, we have endeavored to develop a spirit of co-operation, with the purpose of overcoming that spirit of indifference to each other's interests, so common between employers and employees.

It is obvious that such indifference constitutes a most serious handicap to the welfare of the employee as well as to the success of the business and that this obstruction to their prosperity will be removed to just the extent that both employee and employer recognize the interests of each other and conscientiously and intelligently co-operate to protect and further such interests.

The development and perfection of such co-operation, to a point that is both just and practical, constitutes a problem in the human relationship, worthy of the best thought and effort on the part of both employer and employee.

Our thoughts along this line, covering a period of many years, have crystallized in what we believe to be the essentials of any plan for the development of industrial co-operation. These are:

1. That those having the active management of a business, should be financially interested therein, and so nearly as possible everyone in proportion to the relative importance of his services to the business.

2. That for those employees whose duties are such as render it impracticable to measure or standardize their individual effort, but which require, in addition to faithfulness, an exercise of intelligent judgment, there should be some provision whereby they may participate, on an equitable basis, in the results of the business operations.
3. That for those employees whose duties can be measured with a reasonable degree of accuracy, there should be a standardization of their production, and a graded bonus for production in excess of such standard. Any plan of this nature should be so devised as to overcome the inevitable tendency towards individual and group selfishness which, if existent, is certain to destroy co-operation.

Subject to such modification as adaptation to the nature of different businesses may render necessary in the method of application, we believe these three essentials constitute a practicable and equitable means of harmonizing the relations between employers and employees.

PROFIT-AND-LOSS SHARING CONTRACT

This article of agreement, made and entered into this..... day of....., one thousand, nine hundred and....., by and between THE A. W. BURRITT COMPANY, party of the first part, and the signers hereto, all employees of said company, party of the second part, Witnesseth as follows:

First—It is agreed that the party of the first part and the party of the second part shall share the profits and losses of the business of THE A. W. BURRITT COMPANY so long as they are both parties to this agreement.

Second—The profit shall be ascertained as follows: The inventory of the 1st of February past shall be taken as the starting point, and an inventory shall be taken in the same form on February 1st each year thereafter. From the gross results thus obtained, shall be taken all expenses of every kind, including depreciation of buildings, tools and machinery, and bad debts; and the results of the above shall be considered the net gain or loss, as the case may be. If the result thus shown shall be gain, the capital actually invested as shown by the inventory at the close of each year shall first draw six per cent (6%) interest (or in case there is less than that amount, shall draw what net gain there is, in liquidation of its

claim): the balance then remaining shall be divided between the party of the first part and the party of the second part in such proportions as the actual capital invested in the business bears to the total wages of the party of the second part for each current year. The total amount coming to the party of the second part shall be divided among its individual members as the year's earning of each bears to their total earnings.

Third—For each current year, one-tenth of the wages of each of the parties of the second part shall be withheld by the party of the first part weekly, and in case there has not been a net loss on the entire business of the year, this reserved money, together with his share in any accrued profit as figured above, shall be paid to each of the parties of the second part on or before March 1st of each succeeding year.

Fourth—In case there should be a net loss made on the business of the year, without figuring any dividend for capital as above provided, this loss shall be divided between the party of the first part and the party of the second part in the same manner as described for dividing profit; but the party of the second part in no case shall become responsible for losses greater than the amount reserved from his wages.

Fifth—Other employees of THE A. W. BURRITT COMPANY may become parties to this agreement after this day, on invitation of the party of the first part; but the computation of their share shall be figured only on wages earned after the date of their signature. Any party of the second part may withdraw, either from this contract or from the company's employ, at any time, but the party of the first part holds the right to retain his reserve until the expiration of the current year and if said reserve is held, its owner shall share in profits or losses unless his reserve has been retained until the end of the year, except as provided in article seventh.

Sixth—The party of the first part can at any time discharge any party of the second part from its employ and require him to withdraw from this contract, but, in such case, said party of the second part shall have the option to withdraw his full reserve or to leave it until the end of the year to share in results as above described.

Seventh—It is further agreed by the party of the first part that no party of the second part shall be temporarily retired from work, so long as the party of the first part has any work of the

kind said party of the second part is accustomed to do; but if there should be a shortage of work in the hands of the party of the first part, it shall reduce the hours of work and so divide the work between the parties of the second part. If at any time any party of the second part should become sick or incapacitated to perform his duties, and has the certificates of a reputable physician that he is so incapacitated, after two weeks' duration of said sickness, said party can draw on his reserve wages at a rate not greater than six dollars (\$6) per week, without affecting his interests in the profits at the end of the year. Further, if any party of the second part should become injured on account of any accident while in the employ of the party of the first part, said party of the first part shall, at its own expense, provide him with a competent physician or surgeon, after application is made to it stating that such services are needed.

Eighth—If any of the parties of the second part wish to inquire into the accuracy of the annual report made to them by the party of the first part, the books of the party of the first part shall be opened for inspection by any reputable public accountant employed by the party of the second part, provided such accountant will agree to confine his report to the statement that the company's report was or was not correct, and if not correct, shall fully define its error.

Ninth—It is agreed that all differences and disputes resulting from operation of this contract shall be settled by arbitration.

.....

The Hall-Scott Company

The Hall-Scott Motor Car Company, of Berkeley, California, has just instituted a profit-sharing plan whereby the employees of the company will share among themselves 25 per cent of the net profits of the concern.

The net profits of the company will be determined at the close of each year and 25 per cent of the net earnings will be distributed in cash to the employees and not be turned into any benefit or trust fund, according to B. C. Scott, president of the corporation. The division of the profits will be based upon the wages of the men, some of whom receive

\$5 and some \$6 and some \$7 a day. New employees will receive \$4 a day, and at the end of three months if they are found to be competent they will be made permanent employees and come under the profit-sharing plan.

During the war the plant of this company was devoted exclusively to the manufacture of the aeroplane engine known as the Liberty motor.

Morris and Company

Morris and Company, Chicago meat packers, recently announced the adoption of a profit-sharing plan whereby employees are enabled to purchase bonds of the company at below the market price and at double the usual rate of interest. Profit-sharing certificates are to be given to bond-holding employees, which permits them to share in 5 per cent of the company's profits, to be set aside for the purpose each year, to the extent of one-half their salary.

An English Plan

William Gray and Company, Limited, West Hartlepool, England, ship-engine builders, have inaugurated a system of profit-sharing between employer and employees which will give every man and woman employed there a direct interest in the company's undertakings. The agreement is for three years with provision for renewal, and provides that stockholders shall receive 80, and employees who have been with the company twelve months or more, 20 per cent of net profits.

The Endicott-Johnson Company

The Endicott-Johnson Company, of Endicott, New York, the largest shoe manufacturers in the world, recently announced a plan for the distribution of dividends among all employees. It is proposed to make annual distributions, per-

mitting every employee a certain percentage of the company's net earnings on the basis of earnings during the year.

The same company was one of the first large manufacturing concerns in the United States to establish the 8-hour day as a definite principle.

The only requisite in the profit-sharing plan is that the men must have been employed January 1, 1919, and worked one year to share in the distribution on January 1, 1920. The plan is that after 7 per cent has been deducted on the preferred stock and 10 per cent on the common stock the balance of the profits is to be divided equally between the laborers and the holders of the common stock.

Any employee is at liberty to purchase any amount of preferred stock he desires and it will be sold to him on application. All the officers of the corporation will work this year without salary, that the amount may go to swell the fund to be paid the workmen.

As to the sums to be distributed among the workers under the new arrangement, that is purely a matter of speculation. The total depends entirely on the year's profits. It was generally recognized, however, that in a good year several million dollars will be distributed in this way.

The Solvay Process Company's Profit-Sharing Plan

The profit-sharing plan of the Solvay Process Company is interesting as showing the results of long experience in a concern known for its progress in handling employment problems. The plan covers the executive group of workers only, as will appear below, but the company maintains an elaborate bonus system for other employees. The Solvay profit-sharing plan is outlined by the company as follows:

The company since 1888 has had a system of participation in profits. The participation is based on the amount of cash

actually paid to the stockholders in the form of dividends, and the amount distributed to the individual varies as his salary.

Participants are divided into 3 classes, called for convenience, first, junior, and senior, and the proportion of profits depends upon the class to which the individual belongs; the first receiving the smallest unit, the junior twice the first, and the senior three times the first.

Membership in the participation classes extends from the chief executive officers to subforemen, and includes both the commercial and manufacturing departments.

The nature of the work performed, length of service, and record as an employee are the qualifications which govern eligibility for membership in the participation classes. In the senior class are included only the chief executive officers and chief technical men; in the junior class, the chief technical assistants, the foremen of important departments, and the more important office men; and in the first class, others to junior clerks and subforemen. The board of directors of the company elects the members of each participation class.

Each participant has a formal contract with the company which fixes the basis of the participation and the obligations of both parties. Contracts are the same in form for all classes, except as to the rate of participation.

Sears, Roebuck and Company

Another notable plan which has unique features, is that of Sears, Roebuck and Company, who employ between 30,000 and 40,000 men and women. About 50 per cent of these workers are eligible to participation in the plan, and to date, about 90 per cent of those eligible have joined in the benefits.

The company's announcement says:

In order that employees may share in the profits of this business and to encourage the habit of saving, the firm decided to contribute annually a sum equal to 5 per cent of its net earnings (without deduction of dividends to stockholders) as shown by the annual audit of its books, to an

employee's savings and profit-sharing fund beginning July 1, 1916.

The plan is intended to furnish to those who remain in the employ of the company until they reach the age when they retire from active service, a sum sufficient to provide for them thereafter, and that even those who achieve a long service record, but who may not remain with the company all of their business life, will have accumulated a substantial sum.

Every employee, regardless of position, is eligible after three years of service so long as he remains an employee. When the employee decides to participate he is required to deposit in the fund 5 per cent of his salary, but "no employee may deposit more than 5 per cent of his salary, and in no case more than \$150 per annum; this limit being deemed advisable so that the higher salaried employees may not too largely participate in the fund."

The contributions of the company are made annually and are credited pro rata to participating persons in the proportion which the amount deposited by each employee during the preceding year, for which the company has contributed, bears to the total amount deposited by all employees during such year.

Withdrawals are provided for as follows: Depositors who have completed ten years of service are entitled to withdraw all money credited to their account, including the contributions of the company. Those who have not completed this term of service may withdraw only the amount they have deposited, plus interest at 5 per cent per annum, compounded semiannually, and no more. Exception is made for a woman depositor who, after 5 years' service, leaves to become married, in which case she will be entitled to her full share in the fund, including the portion contributed by the company. Another exception is made if a depositor dies while in the service of the company; in that event his estate is entitled

to the full amount credited, including the company's contributions.

Depositors are required to withdraw upon leaving the employ of the company, or on failure to make deposits regularly. Once having withdrawn, a depositor cannot re-enter the fund. When a depositor who withdraws is entitled to share in the contributions of the company, he will receive the full amount to his credit as shown by the accounting for the preceding year, with interest at the rate of 5 per cent.

The fund is managed by a board of five trustees, selected by the board of directors of the company—three of whom are officers or directors of the company, and two who are not officers or directors. So far as practicable and advisable, the fund is invested in shares of stock of the company "to the end that the depositors may, in the largest measure possible, share in the earnings of the company."

Discontinuance of the fund may take place at any time by announcement of the company, made at least six months before its final yearly contribution. After such announcement no new depositors will be eligible to join and the fund will be distributed among the depositors pro rata in proportion to their interests as ascertained by the board of trustees.

An Exposition of the Plan's Working

An interview with Julius Rosenwald, president of the company, published recently in the *New York Times*, brings out clearly how the plan will work out. Mr. Rosenwald said:

A woman earning \$20 a week, for example, for a period of 15 years, would pay \$780 into the fund, and I believe that she will have to her credit at the expiration of that time approximately \$4,200 as the result of an investment of \$1 a week. In the same manner an employee earning \$3,000 a year would contribute to the fund \$150 a year for, say,

30 years, a total of \$4,500, and would draw out approximately \$41,000. These are conservative estimates based on the growth of our business in the last 5 years.

N. O. Nelson Company

A different form of profit-sharing and one which the company has continued since 1886 is that of the N. O. Nelson Manufacturing Company of St. Louis. The plan was begun with a notice placed in the pay-envelopes saying that the net profits of the business, after allowing the commercial rate of interest on the capital, would be divided by equal percentage between the shareholders and the employees of all grades who had worked six months within the year. Soon after, a meeting of employees was arranged and they elected an auditor to verify the figures as to the dividend. That year, on account of a railroad strike, the dividend was only 5 per cent. But the next year saw a dividend of 10 per cent on wages and the company announced that thereafter the dividend was to be paid in stock. After the panic of 1883 dividends were suspended for several years; but this was made up later by the company giving 4 per cent for these years.

In 1905 the company took its customers into the scheme and based the shares of such customers upon the gross profits of their purchases. Capital then, as now, received 6 per cent; but no other share in the profits. The average yield of dividends to employees has been about 18 per cent, and they now own about one-third of the capital.²

² Among the concerns which have adopted profit-sharing are the following: American Rolling Mill Company, Middletown, Ohio; Baker Manufacturing Company, Evansville, Wis.; Youngstown Sheet and Tube Company, Youngstown, Ohio; Spencer Wire Company, Worcester, Mass.; Lever Brothers, Ltd., Port Sunlight, England; Interlake Steamship Company, Cleveland, Ohio; Farr Alpaca Company, Holyoke, Mass.; Edison Electric Illuminating Company, Brooklyn, N. Y.; Ballard and Ballard Company, Louisville, Ky.; Wayne Knitting Mills, Fort Wayne, Ind.; Studebaker Corporation, South Bend, Ind.; Jacob Dold Packing Company, Buffalo, N. Y.; National Carbon Company, Cleveland, Ohio; E. I. Du Pont de Nemours & Company, Wilmington, Del.; Cleveland Twist Drill Company, Cleveland, Ohio; Ford Motor Company, Detroit, Mich.

Summary

As will be seen by the examples just given, there can be no blanket plan of profit-sharing for all concerns. Plans and methods in this field depend upon the nature of the concerns entering into it and upon the individual desires and experiences of employers. Each plant must work out its own individual method. The portion of profits to be divided must be large enough to give to each participant an amount sufficient to secure his hearty interest in it. Distribution must be made frequently enough so that there may be no cases of long-deferred payment, since the employee looks upon his share of the profit as a legitimate part of his pay when once the system has been adopted. The longest period for profit division, and the one now most common in the American industry, is one year.

Philanthropy must not be a part of the system, although philanthropic employers were the first to adopt it in this country. Profit-sharing must stand upon its merits as good business. It must possess actual economic advantage for employer and worker. Otherwise, it is bound to fail. The proportion of profit which the worker is to receive must be definite in its statement of rate or percentage and made clear as such to the employee. Profit-sharing implies an educational campaign among a body of workers, which, rightly carried out, tends to make the worker more intelligent and more interested in his concern. Finally, profit-sharing as a means of promoting labor stability must rest upon sound employment methods.

CHAPTER XXVI

LINKING UP WITH THE COMMUNITY

The Community Idea

The community idea means the extension of educational and social opportunities to those who are beyond school attendance. Only 10 per cent of our adult citizens have had a high school education, and only 50 per cent have completed the grammar school. It is clear, then, that one of our greatest national needs, if not the greatest, is continued education and opportunity throughout the years of employment. The community center, in which community activities for the public welfare may be brought together, provides a partial solution, at least. The community center movement is based upon the fact that education is a lifelong process. Further, the greatest good of each member of society is the concern of all society. Community service may be called common interest work. It aims at the preservation of health, prosperity, and happiness of all persons. It begins in the home and shop and concerns itself with improved sanitation, better housing, better streets, better parks and playgrounds, and with every movement for the general good of the community.

The Obligation of the Employer

What, then, so deeply concerns the public at large must be of supreme importance to the world of industry. Those who are illiterate, those who lack opportunity, and those who may have but little incentive and encouragement, are found in almost every employment. The employer has, accordingly, a very high duty, to co-operate with every movement

for community benefit. This involves more than contributing financial support to local activities. The employer or corporation may work through officials and employees in his co-operation with community service. He may, indeed, employ a special expert to represent him in his share of community service.

Kinds of Industrial Communities

There are two kinds of industrial communities: one established and practically owned by a corporation or local industry, and the other the ordinary town or city community in which an industry has grown up. Examples of the first kind are Gary, Indiana, and the shipyard towns—entire communities with every necessary facility—recently constructed by the national government. In such communities, industry naturally guides activities for the public welfare. It may, of course, secure help and co-operation from outside sources. The question becomes one mainly of what shall be done. On the other hand, an industry planted in an old community must assume its part in community activities.

Community Organization

The first step in the undertaking of linking up with the community is a recognition of the nature of the problem. Those who have the launching of organization for community service must study carefully into the community's history and activities. They should know what has been done in cities and towns throughout this country and in other countries. The second step should be a determination of the boundaries of the locality to be served. An industrial plant that owns a town or determines its activities will have its local boundaries already made clear. A plant which co-operates with other agencies in community activities is likely to interest itself as widely as the homes of its employees are scattered. The

third step in organization, from the standpoint of an industrial concern, is to determine what agencies and individuals may be called in to assist or join in co-operation. When these basic kinds of information are established—the nature of the work to be done, the area to be served, and the co-workers in service—then definite steps for a formal organization may take place. Primary meetings may be held for the benefit of those who are to share in the work. With formal organizations a constitution is usually adopted defining the purposes and methods of the undertaking. The usual officers of committees are appointed.

The Community Secretary

The executive officer is usually called the community secretary. He is chosen by ballot by the entire organization, as his function is recognized to be the most important function in community activity. His is a new profession. He must have all the training of the schools and practical experience in social and civic work. There may be a number of community secretaries for an organization whose territory is so large that it must be cared for in divisions.

Frequently when community activity calls for considerable physical development in a town, such as the laying out of streets and parks, the proper arrangement of new buildings for public use or private dwelling, and sanitation, an expert engineer, town- or city-planner, or landscape architect may be employed for a shorter or longer time. Here again our subject verges into housing.

The Civic Center

The community or civic center, that is to say the place of meeting (for the meeting must ever be the prelude to any community activity), is more often a school building than

a building of any other kind. The school is the natural meeting place of old and young. It is usually free from political or sectarian influences. In it people may meet in common interests and with united endeavor to carry out all that is embodied in the modern community idea.

The primary objects of organization, as was pointed out at the beginning of this chapter, are the promotion of educational opportunity and social benefit. The kinds of activity the organization is to maintain have been indicated. There may be subsidiary or associate bodies in the work or forms of work, such as the home and school league, the local agricultural association, and the community forum.

An Example of Community Building and Improvement

The United States Steel Corporation has accomplished so much in community service in recent years that it seems well to present some of its work at this point. There are two general types of the new Steel Corporation towns. The first type is that of the towns which are created to serve only a temporary function, such as may be found at some of the coal and iron mines. These towns are little more than camps. In such places the Steel Corporation assumes all the responsibilities of government and general welfare. The second and higher type of Steel Corporation town is that in which permanency is expected. In these towns the most modern living conditions are provided and future betterment is planned for. The corporation does not attempt to dominate the whole enterprise, and a new town quickly assumes a character of its own. It chooses its own administrative officers, and conducts its affairs according to the wishes of the majority of the citizens. The community idea, however, develops more rapidly and effectively in such towns than in most of our older, conservative, industrial communities.

Two Examples of Steel Corporation Towns

Gary, Indiana, and Fairfield, Alabama, are the most striking examples of what the Steel Corporation has accomplished in recent years in the creation of industrial communities. Gary was planned and built by the Gary Land Company, a subsidiary company of the Steel Corporation. Fairfield was developed in co-operation with the Steel Corporation by a private corporation, the Gemison Real Estate and Insurance Company, of Birmingham, Alabama. In these enterprises, as in others of a similar nature, two purposes are paramount—to provide good housing, and to establish the idea of civic unity, as will appear in the following paragraphs from an article by C. J. Stark, associate editor of the *Iron Trade Review*:

Fairfield is the latest and probably best example of city-building from a Steel Corporation standpoint. It surpasses even Gary in the extent of its public works and in the general provision for the workman of modest income. It represents another step forward in the approach toward the perfect mill community. The lessons gained from Gary and other steel towns have been utilized to good purpose in the newer city.

The new city of Fairfield lies southwest of Birmingham and between that city and Bessemer. It is 6 miles from the center of Birmingham, 6½ miles from Bessemer, and 1 mile from Ensley. It adjoins a tract of more than 2,000 acres of land acquired by the Steel Corporation several years ago for the future development of its southern resources. The town site is served by four southern trunk lines: the Birmingham Southern, the Southern, the Louisville and Nashville, and the 'Frisco system. Its topography is favorable to the development of attractive residential surroundings. On a portion of the site are wooded hills which have contributed much toward the landscape beauty of the town. The manufacturing units of the Steel Corporation recently completed or now under construction, are the plants of the American Steel and Wire Company, to cost \$4,000,000, and a by-product

coke plant of the Tennessee Coal, Iron and Railroad Company, of an estimated cost of \$3,500,000. These works are so located that they directly face Fairfield. . . .

The town of Fairfield has been laid out and planned with minute attention to every feature of importance in a modern city, where workmen are to make up the great portion of its population. The scheme of the town revolves about a central park area, where are located a civic center, the plaza, and the park. About the civic center are being grouped in a quadrangle, with an open parade within, the public buildings of the town, all of which, it is provided, will harmonize architecturally. These public buildings include a town hall, library, Y. M. C. A., public bath, and a training school. The civic group is approached by a wide plaza, which is flanked by business buildings. These structures conform in style to those of the civic group. The plaza is 247 feet long by 150 feet wide and is paralleled by two business streets, which run from Gary Avenue, the principal business thoroughfare, to Carnegie Avenue and the civic center. Gary Avenue passes through the town to an entrance to the American Steel and Wire Company's plant. Near the center of the town, a second important business thoroughfare, Crawford Street, intersects with it. Crawford Street leads to the main entrance of the coke plant of the Tennessee Coal, Iron and Railroad Company, and to the plant of the Harbison-Walker Refractories Company. The junction of these two streets forms the business center of the town. The park area about the civic center will be developed as the town grows, and requires more recreative space. There has been established or provisions made in this section for wading-pools, athletic fields, outdoor gymnasium, and other open-air pastimes.

The Four Bases of Community Welfare

The National Cash Register Company bases its community activities upon the following four fundamental principles:

1. Neighborhood improvement increases the value of property.

2. The whole community benefits by what is done in one section.
3. The employee who is happy at his work is naturally interested in the well-being of the community. He, therefore, takes an interest in civic affairs.
4. What one factory does for its employees affects the community, because these same thoughts are carried from the factory to neighborhood meetings.

The Hills and Dales Club, a community club, conducted by this company, is open to anyone living in Dayton or vicinity. The membership dues are \$1 a year. Camps located in Hills and Dales Park, are attractively fitted out, and are used by large numbers annually.

Community Festivals and Mutual Enterprises

Among the activities in which industry may co-operate with the community are public festivals, celebrations, and enterprises for the common good. Agricultural fairs in rural districts are among the best known means of community expression. In all cases where such a fair is held we find industrial establishments co-operating with local committees and agricultural leaders in the management of the fair, and contributing to its support by taking advertising space in its circulars, and by exhibiting articles of manufacture. The celebration of the Fourth of July throughout the country owes its success largely to industry and community co-operation. Other local celebrations often succeed best under the same conditions. The opening of a new athletic field in a town or city is usually made an occasion for a general celebration. When such an observance does not come upon a public holiday, industrial plants usually shut down for the day or half-day, so that their workers may join in the activities and pleasures of the public event. It is well known that in the countries

of the old world the celebration of the religious and public holidays has become a serious detriment to industrial production. We have not yet reached that stage, however, in America.

Strictly Community Festivals

Frequently a concern conducts a rally day or field day, planned to develop company spirit and enjoyment. At such times athletic contests and other events in which many persons take part are provided. Prizes are offered by the company, and the event usually comes to have all the interest and significance of an annual celebration.

Folk Festival of Norton Grinding Company

Among the most conspicuous of recent community activities are folk festivals and pageants. The folk festival is a celebration in which the usual activities of business and industry are put aside and young and old join in a program of pleasure. In a small town the festival usually includes all the people who can join in it; and in the large town or city such a portion of the people as have common interests and associations, as for instance the employees of a large concern, with their families. An excellent example of a folk festival is that conducted by the Norton Grinding Company of Worcester, Massachusetts. One of these has been described in the *Norton Spirit*, a plant magazine of the company:

It is not necessary to tell those who were with us last year what a Norton Folk Fest is like. It is one round of social enjoyment and interesting excitement lasting an entire afternoon. It is a day for the girls and boys, as well as their fathers and mothers, and the man who forgets or neglects to invite every member of the family to this year's Folk Fest ought to be subjected to severe punishment to suit the occasion. This is a Norton family day and each member of every Norton family is invited and welcome.

A large committee is at work making plans for the afternoon. The big stunt, as in past years, will be the Folk Fest parade. In all probability the parade this year will be larger and fully as interesting as last year. It will form at 2:15 o'clock on New Bond Street. At the head of the parade will be our general manager, Charles L. Allen, as Chief Marshal; and inasmuch as J. C. Spence of Norton Grinding Company, is again the organizer and manager of the parade, we are assured of a spectacular pageant with many stunts, clownish performances, and plenty of noise.

The parade will disband on the baseball field where the entire crowd will be entertained for an hour or more. Not the least interesting part of the entertainment will be a delightful band concert by The American Band of Providence, formerly Reeves Band—an organization of 40 musicians that is considered one of the best in the East.

While the entire program cannot be revealed at this time, it is certain that there will be a horse show and we know we are to be entertained with a performance and concert by the Norton clowns and the famous Whetstone Band led by Si Pikestone, the better known as Tom Marshall.

After the concert all visitors are extended a cordial invitation to visit Indian Hill Village. Some of the attractive Indian Hill houses will be open for inspection and possibly especially furnished for the occasion.

There will be ice-cream and soft-drink stands at different points on the hill, as well as on the baseball field.

The entertainment is to close with a grand display of daylight fireworks. The program, arranged especially for the occasion by the International Fireworks Company, of Jersey City, New Jersey, consists of more than 40 pieces, great bomb shells which make terrific reports and release various objects in the air. Reference to the program shows that not only will there be a grand salute to the American flag and such objects as Japanese umbrellas, floating fish, flocks of birds, but the children will recognize in the air their old friends Mutt and Jeff, Happy Hooligan, and the Merry Widow. There will be floating elephants, racing boats, pigeons, Uncle Sam, aerial band, balloons and confetti, and the American Eagle; and exhibition of the national

colors, floating serpents, aeroplanes, dogs, and other animals. This is only a hint as to what the full program of the display contains.

A dance platform will be located at the corner of Indian Hill and Ponken Roads, where ex-President Roosevelt planted the oak tree on September 1, the spot now known as Roosevelt Place.

The exhibition of garden products and flowers will be of more interest this year than ever before. The Agricultural Fair is to be held in the New General Department Building near the baseball field. The building is just being completed and all visitors to the Folk Fest will enjoy inspecting this building, even though they might not be interested in the fair. Don't fail to visit the exhibit before you leave the vicinity of the baseball field.

Pageant of Merchant Shipbuilding Company

The Merchant Shipbuilding Corporation of Harriman, Pennsylvania, on Labor Day, 1918, conducted an elaborate pageant of employees who represented twenty-six nationalities. The affair was called a "Pageant of Nations" and over 9,000 took part. Part of the program consisted of a cable from the participants to General Pershing pledging their best effort in helping him defeat our enemies. The cablegram read:

Shipworkers of Merchant Plant, Harriman, representing twenty-six nationalities, by a united pageant on this significant day, pledge to you sixteen ships this year, and our devotion to our common cause until victory is assured.

Other features of the program were the dedication of two new buildings—the Y. M. C. A. and the Service Building.

Minor Community Activities

There are numerous smaller activities in community service in which industrial establishments generally take part. These relate to the home, school, church, settlement house, play-

ground, and other interests of general concern. Connected with the home life are, the planting of gardens, vegetables, and flowers, the care of lawns, the canning of fruits, the teaching of household arts, and similar duties, all of which may be encouraged in the home and taught in the community center.

Gardening

The planting of war gardens has given a great impetus to gardening, which results in increased production in town and village, new habits of industry and economy, and added health and enjoyment of outdoor life among workers. In many cases manufacturing concerns have provided plots of land for free use by employers, with all needed help and advice.

The United States Steel Corporation, whose plants are situated in extensive country districts, has been especially generous in this respect. One of its subsidiary companies, the H. C. Frick Coke Company, may be taken as an example. The following information relative to gardening prizes, etc., for the year 1914, gives a good idea of the interest the employees of the H. C. Frick Coke Company are taking in planting gardens:

Cultivated or growing vegetable and flower gardens.....	6,923
Lots sown in grass and oats.....	43
Lots where tenants have changed during year.....	20
Lots converted into chicken yards, tenants sick, etc.....	27
Indifferent tenants (not desiring gardens).....	87
Vacant property	183
Total lots available for cultivation.....	7,283
Percentage cultivated	95
Number tenants whose lots are not fenced.....	149
Total tenants	7,477
Percentage of tenants raising gardens.....	92

The awarding of prizes was begun during the season of 1910 and the following season the company began to issue

certificates in connection with the prizes. At all plants having 300 ovens or more, three prizes of \$10, \$5, and \$3 are awarded for best vegetable gardens, and three prizes of \$5, \$3, and \$1 for the best flower gardens. At plants having less than 3 ovens, two prizes each of \$6 and \$3 for vegetables, and \$4 and \$2 for flower gardens are awarded, \$1,277.25 being expended in prizes for the year 1914.

The superintendent at each plant selects three judges as a committee to inspect the gardens each year, these judges being neighboring farmers or business people.

Playgrounds and Kindergartens

The playgrounds provided by the United States Steel Corporation for children in the communities in which the subsidiary companies are located are an important part of the community service of this corporation. There are over 137 such playgrounds. In most cases the company's unused land is utilized for the purpose and the equipment and the labor in putting the ground in shape are provided by the company. The grounds are placed in the hands of capable instructors who are paid by the company. At some of the playgrounds instruction is provided in sewing, basketry, and handicraft. At night, parents and children are invited to see motion pictures. The daily average attendance in the summer is around 18,000. It is not difficult to see what a good influence on the children such opportunity offers and experience has borne this out.

Kindergartens have been an important work of Joseph Bancroft and Sons Company, Wilmington, Delaware, one of the oldest bleaching and dyeing establishments in the country, in their villages of Rockford and Kentmere. The Rockford Kindergarten was opened in 1890 and has been in charge of an experienced leader. The Kentmere Kindergarten was started in 1896.

Education

Industry may do much with educational work in a community, in connection with the public school or civic center. It may advise in courses of study for adults as well as for youths, provide and train vocational teachers, and aid in supervising industrial classes. The industry may provide the laboratory for the industrial student, as is so frequently the case in part-time education.

Building Citizens

Industry may be especially serviceable in training for citizenship. The example of the National Cash Register Company is especially inspiring.

One of the most interesting features of the service work carried on by this company is among the children of the city. The way so-called bad boys of Dayton were converted to good citizenship by the "N. C. R." would make an interesting story.

John H. Patterson, president of the company, long ago realized that it was necessary to have a firm foundation for any permanent good. As the boy is said to be the father of the man, so the efforts of this great organization were directed toward the youngsters of the community, as well as toward their elders, in a campaign for good citizenship.

The boys and girls of Dayton are being instructed in the things that are worth while. Boys' gardens, girls' gardens, community playgrounds, and the boys' box furniture company are but a few of the steps.

One of the most effective methods of developing the minds of the young and preparing them for future good citizenship, has been found through the medium of entertainments which are both educational and interesting. These entertainments are held each Saturday morning in the N. C. R. Schoolhouse and at the N. C. R. City Club.

All the boys and girls in Dayton are invited to come to these meetings, which are free to everybody. The program usually starts with the singing of illustrated patriotic songs by the boys and girls. Then the company physician, Dr. F. G. Barr, gives a short talk on health, presenting his subject in such a way that the children will understand and appreciate it. Stereopticon views help bring home forceful points. At times other speakers talk to the youngsters on matters of common good, which will benefit, and at the same time interest them. A statement from the company continues:

After this, educational and entertaining moving pictures are shown. The doings of the screen actors make the children tremendously happy, and it is a treat to see those beaming little faces and hear their joyous laughter. Following the pictures is the chief event of the morning when refreshments are served to the hundreds of little guests. The attendance of the two meetings is usually about 1,000. The time of the meetings is arranged so that one speaker can talk to both audiences the same morning. The meetings last about two hours.

It should hardly be necessary to say that these meetings are very popular with the boys and girls, as well as with their parents. The children receive the right kind of knowledge, presented in an attractive manner. The community gains valuable citizens and greater force for right and justice.

Athletics

In many industrial plants athletic teams are organized, often becoming members of local leagues. The fact that such activities are conducted in the name of the company and under the incentive of company spirit tends to raise the tone of athletics among those who participate. The worth of this kind of employee activity has already been discussed in a previous chapter.

Community Singing

One of the most valuable results of the world war has been community singing, in which industrial concerns are taking a leading part. Community singing and orchestral work by the employees in mercantile and industrial plants are spreading throughout the land. "Welcome Home" events for the service men and the national week of song, so widely observed, were in many places the occasion for inaugurating the movement. The much talked of song exercises in the Philadelphia shipyards and in meat-packing plants in Chicago, which were organized under the stress of the war, and which proved so valuable in keeping morale and efficiency up to pitch, have since been reproduced in scores of towns and cities in times of peace. It is estimated that there are at present more than 1,000 such industrial musical organizations in the United States.

A Development of the Community Idea

The recent development of the community idea in the factory town of Walpole, Massachusetts, is an excellent example of what may be accomplished by united effort and organization in an industrial locality. The Walpole Town Planning Committee issued a report upon its work in a volume entitled "Town Planning for Small Communities," in 1917. We cannot better close this chapter than by quoting from this report in the following paragraphs:

As civilization is slowly equalizing conditions in the countries throughout the world, the necessity of healthy community development, for national strength and security, is steadily becoming established as a national concern of the utmost importance. It is being realized that the community is the nation's foundation, and that the strength and greatness of a nation is dependent upon the united character of the separate communities upon which it is built. . . .

First, what we want in the state we must start in the schools.

The times demand that our educational system should be changed. We need to educate not only the intellect of children, but also their heart and soul and body. We need to teach the principles of self-government, to awaken the sense of civic responsibilities and citizenship alive to the obligation to service, necessary for community strength and progress, and continued national security. Patriotism begins at home. . . .

Second, we need community organization. Municipal research bureaus, civic leagues, boards of trade, and similar organizations have been an important factor in community development; but no organization which includes only one group of citizens is a complete community organization. What we need is a democratic federation of community forces, including in its plan not only the organizations of men, but of the women of the community. . . .

This committee was appointed by vote of the citizens of Walpole in March, 1913, with instructions to study the condition and needs of the town, and report as to what should be done to advance town interests. Our first step was to consult with the officers and committees of the town for the purpose of securing all available ideas and suggestions that would be of value to us in outlining our work.

The second step was to engage the services of Mr. John Nolen to prepare development plans and to make a report to the town.

The plans which were prepared by Mr. Nolen, covering the development of town lands, were submitted to the administrative officers of the town, and, upon approval, were placed on file in the office of the selectmen.

In the spring of 1914, a bulletin was prepared and a copy presented to each citizen in town as a preliminary report of the committee.

At the annual town meeting, March 14, 1914, the general plan upon which we have based our recommendations for physical development was accepted by the citizens as the official town plan to be followed as a guide in all future development.

At this same meeting the following article was passed:

"That the voters of the town instruct the selectmen to refer to the Town Planning Committee for approval or disapproval all plans for the location, erection, or alteration of public buildings in town and all plans for the laying out of new streets or alterations in widths, grades or extensions

of existing streets, and instruct the selectmen, when any plans are disapproved by the Town Planning Committee, to refer said plans to the voters for action at a town meeting before executing such plans."

In 1914, this committee presented to the Street Committee of the town a definite suggestion that an engineer be engaged to make a detailed study of the roads and ways in town with a view to determining future development. This suggestion was adopted and the report of the engineer was included in the annual report of the Street Committee. . . .

The Walpole Town Planning Committee, in its relation to the administration of town affairs, enjoys neither executive nor administrative authority. It is created to serve as an advisory committee in all matters having to do with future town needs. As town officers and committees are necessarily occupied with immediate administrative work, it is impossible for them to give sufficient time to adequate planning for the future growth of the town. It is this function of planning which the Town Planning Committee exercises.

All plans prepared by the Town Planning Committee must be submitted to the town authorities for approval; but, by vote of the town, no action can be taken that would vitally affect the future development of the town, before referring such proposed action to this committee.

In 1913, the Massachusetts Homestead Commission secured the passage of the following act:

"Every city of the Commonwealth, and every town having a population of more than 10,000 at the last preceding national or state census, is hereby authorized and directed to create a board, to be known as the planning board, whose duty it shall be to make careful studies of the resources, possibilities, and needs of the city or town, particularly with respect to conditions which may be injurious to the public health or otherwise injurious in and about dwellings, and to make plans for the development of the municipality with special reference to the proper housing of its people. In cities the said shall be appointed by the mayor, subject to confirmation by the council, and in cities under the commission form of government, so called, the

members of the board shall be appointed by the governing body of the city. In towns, the members of the board shall be elected by the voters at the annual town meeting. . . ."

A community organization is the vital force that will prevent a town, as it grows, from becoming ugly and unhealthy. A reasonably safe and social program, consistently carried on from year to year, will accomplish wonderful results. It is expected that the Walpole Community Federation will be an effective force in community building. . . .

The Town Planning Committee is responsible for the plan for the future needs of the town. The Community Federation should be responsible for outlining the town program of action.

This committee is ready at any time to meet any citizen wishing information upon town planning, or discuss any details of the work of the committee. It is eager to receive suggestions from anyone regarding town needs.

In our annual report to the town we recommend that six specific tasks be accomplished this year:

1. Establish the width of Washington Street and Main Street and establish widths and grades on other streets.
2. Make additional appropriation to continue work of street survey.
3. Take up the gradual development of the park at the center with a view to its complete development at the end of ten years.
4. Establish a town forest. An appropriation should be made to enable the town to take advantage of offer of land for site. Plans for development have been prepared.
5. Begin development of civic center.
6. Organize a co-operative real estate association. Committee of the board of trade has this matter under consideration and should push plans for organization.

Already much has been done toward carrying out these recommendations. It is hoped that they may be completed before the end of the year.

As a specific program for the ensuing year, we believe that something should be done toward carrying out each item in the following program.

1. Prepare district plan showing industrial, commercial, and residential sections to prevent haphazard development, and outline a program to stimulate material growth.
2. Get one new industry for Walpole.
3. Bring about some good housing development under the direction of the Co-operative Real Estate Association.
4. Equip playgrounds and establish playground instruction as part of educational system.
5. Adopt model charter for new form of government.
6. Carry out annual program of street development and definitely establish width and building lines of required number of streets to carry out this program.
7. Especially establish 60-foot width on Washington Street through East Walpole Center.
8. Start movement toward advancing agricultural interests of the town, assisted by the Norfolk County Agricultural School, which, largely through the efforts of the board of trade, is to be located in Walpole.

COMMUNITY

Accomplished in whole, or in part

1. Agreement on the part of the directors of the Improvement Federation to need for reorganization of present Improvement Federation to community organization.
2. Published bulletin: "Walpole Plan Today for Tomorrow."
3. Acceptance of town plan.
4. Organized 1920 Better Walpole Campaign under Federation.
5. Publish preliminary report on town manager form of government.
6. Organization of Choral Society under Federation.
7. Appointment of Pageant Committee to consider yearly town entertainment, under Federation.
8. Assistance to Boy Scout organization.
9. System of exercises, planting of first acre of town forest by children of the town.

RECOMMENDATIONS

1. Establish town Federation and community organization along suggestions included in last chapter of this report.

2. Establish community house.
3. Make wider use of school buildings.
4. Make industrial survey.
5. Make social survey.
6. Promote co-operative societies.
7. Establish trade center.
8. Develop rural activities.
9. Develop truck farming.
10. Develop intensive farming.
11. Establish packing and canning industry.
12. Accept law providing for agricultural school in Norfolk County.
13. Establish town orchestra.
14. Establish annual festival day.
15. Promote clean amusement enterprise, motion picture, etc.
16. Install gymnasium apparatus in schools.
17. Start playground organization under school department.
18. Promote folk dancing and play picnics.
19. Individuals donate use of land for gardens.
20. Secure filter beds and install sewer system.
21. Co-operate with the state board of health.
22. Establish milk regulations.
23. Extend school inspection.
24. Combine duties of school nurse and supervisor of attendance and appoint competent person.
25. Extend visiting nurse service.
26. Establish dental clinic.
27. Improve sanitary inspection.
28. Develop residential growth of the town.
29. Make housing survey.
30. Encourage co-partnership housing plans.
31. Enforce building regulations.

APPENDIX A

FORM OF RECORDING LABOR TURNOVER¹

MEASURING THE STABILITY OF THE WORKING FORCE

Getting at the Basic Factors

Employment managers and others engaged in the work are still finding difficulty in arriving at a standard practice whereby they can measure the stability of labor in particular plants, so that the results may be comparable with those of other concerns.

There is a difference of opinion about the factors that should be considered in computing the percentage of labor turnover. While there is some agreement as to the formula to be used in arriving at this percentage, much discussion centers around such questions as whether computation should be made on the basis of new workers hired, or upon the number of terminations from employment. Attempt at a workable formula has brought forth theories which have only served to befog the issues.

Lack of a simple terminology has also added to the confusion. When use is made of such terms as "Hires," "Hirings," "Leavings," "Quits," "Firings"—when charts are made so complicated that only the expert who created them can explain them—it is no wonder that many an executive has shown his impatience with efforts to make a mystery of a simple proposition. The problem is not an academic one to be solved by researches in the field of higher mathematics.

¹ See Chapter I.

What those who shape the labor policies of a concern want to know is the facts, and they want a simple, practical, easily understood method of getting those facts, presented in the simplest possible form. They want a method which enables them to compare their facts with those of executives in other plants, so that when percentages or other figures are discussed all will know that the results are arrived at in the same way in each case.

Some Basic Factors

Now what are some of the basic factors in the measurement of labor stability? Labor turnover is *the condition in industry represented by the engagement, loss, and replacement of workers. It represents the leakage or waste of man-power in terms of shifts in the working force.*

A high turnover indicates several things. It may mean that the conditions of employment are unsatisfactory, that the management is inefficient, that the methods of the management are wrong, that insufficient attention is being given to the human factors which govern the relations between the management and the workers (see Chapter XXI), that workers are not carefully selected, that they are not properly placed, that no incentives toward the best effort of the workers are offered, that man-power is being wasted.

There may be other causes for a high turnover of labor beyond the control of the management; but careful analysis of its labor losses by a concern will readily show where the trouble lies. It is important that accurate records of changes in personnel should be kept. Each worker who terminates his employment should be interviewed to learn why he leaves, if he leaves of his own accord. It has been the general experience of industrial plants throughout this country that it is much easier to control the conditions of discharge of workers

so that their number may be reduced than it is to control the voluntary termination of employment.

Means for Recording Turnover

The author has devised a special form for recording information as to the stability of labor and making the results easily available. (See Figure 28.) Those who wish to use this form or to arrange one themselves will find the following explanation of the terms helpful:

In the following explanation, the numbers used correspond to the numbers of the columns on the blank. The terms used at the head of columns 1 to 12 are self-explanatory. The term "Wages" (13) will include resignations owing to inadequate wages, failure to adjust rates to the satisfaction of the worker, deductions for lost time which often result in a worker losing his interest in the job, failure to pay wages promised, or other reasons of this nature.

"Better Job Elsewhere" (14) will include such reasons as more opportunity for advancement or promotion, finding another job more suited to the training or experience of the employee, possible better treatment in a new job by superiors or fellow-workers.

"Housing Conditions" (15) may mean inadequate housing accommodations, rents that are too high; poor condition of company houses if such are used by the employees, or that the employee lives too far from his work.

"Industrial Accidents" (16) includes accidents occurring in the course of employment. Often workers will leave because they are under the impression that there are too many accidents in the plant and nothing can convince them that they are wrong.

"Work Conditions" (17) will include unsanitary toilet conditions, inadequate washroom facilities, dangerous conditions around the plant, poor drinking water, inadequate tools, work that is too heavy; work that is dangerous to health, inadequate protection from weather, or where the employee is exposed too much to bad weather conditions.

Columns 18, 19, 20 are left blank for entering reasons for resignation peculiar to the concern or for other special reasons.

"Reason Unascertained" (21) will cover those who are automatically dropped for prolonged absence, where there was no inter-

LABOR STABILITY REPORT

Plant Summary

Month, _____ 19__

Name of Firm _____

TOTALS

Total Number of Employees 1st of month	Male _____	Female _____	_____
" " " " end of "	Male _____	Female _____	_____
Net Increase or Decrease	_____	or _____	% _____
Labor Turnover	% _____		
Turnover previous month	% _____		

ENTRANCES

	Male	Female	Per cent
1—Employed	_____	_____	_____
2—Re-employed	_____	_____	_____
Total, _____			

TRANSFERS

	Male	Female	Per cent
1—Promoted	_____	_____	_____
2—Another trial	_____	_____	_____
Total, _____			

TERMINATIONS

	Male	Female	Per cent
1—Resignations (voluntary)	_____	_____	_____
2—Discharges	_____	_____	_____
3—Lay-offs	_____	_____	_____
4—Unavoidable	_____	_____	_____
Total, _____			

EXPLANATION

LABOR TURNOVER is the condition in industry represented by the engagement, loss, and replacement of workers. It represents the leakage or waste of man power and is a fair index of the efficiency of management methods and conditions of employment.

FORMULA FOR COMPUTING LABOR TURNOVER

T = Turnover; A = Average*number actually at work daily for period computed; L = Loss; M = Transfers from department to department; U = Unavoidable losses (death, disease, etc.)

$$\text{For the Plant } \frac{L - (M + U)}{A} = T$$

$$\text{For a Department } \frac{L - U}{A} = T$$

The following formula is recommended by U. S. Dept. of Labor and National Employment Managers' Conference, Rochester, N. Y., 1915.

$$\frac{L}{A} = T$$

WHEN INCREASING THE FORCE = Subtract the increase from the number hired during the period. This will give the amount of loss or value of L. Then use the formula.

WHEN DECREASING THE FORCE = Add the number represented by the decrease to the number hired during the period to obtain the number leaving or value of L. Then use the formula.

*The average should be obtained by adding the daily totals of workers employed and dividing the result by the number of working days; for a weekly average, by taking the daily totals of workers employed and dividing by the number of weeks. To obtain the annual rate of turnover multiply the monthly figure by 12, or the weekly figure by 52.

†Transfers should be included in the value of L when computing turnover for a department.

Figure 28. (a) Form for Recording Labor Turnover (first page)
(Size $8\frac{3}{16} \times 10\frac{1}{4}$.)

FORM OF RECORDING LABOR TURNOVER

415

[illegible]

Figure 28, (c) Form for Recording Labor Turnover (third page)

TERMINATIONS
TURNOVER ACCORDING TO PERIOD OF SERVICE

				TOTAL		
Employed 2 weeks or less	.	.	.	=====	-----	% of terminations
" 2-4 weeks	.	.	.	=====	-----	% " "
" 1-3 months	.	.	.	=====	-----	% " "
" 3-6 months	.	.	.	=====	-----	% " "
" 6-9 months	.	.	.	=====	-----	% " "
" 9-12 months	.	.	.	=====	-----	% " "
" 1-2 years	.	.	.	=====	-----	% " "
" 2-3 years	.	.	.	=====	-----	% " "
" 3-4 years	.	.	.	=====	-----	% " "
" 4-5 years	.	.	.	=====	-----	% " "
" 5-10 years	.	.	.	=====	-----	% " "
" 10-15 years	.	.	.	=====	-----	% " "
" Over 15 years	.	.	.	=====	-----	% " "

TURNOVER BY NATIONALITIES

				TOTAL		
American	.	.	.	=====	-----	% " "
English	.	.	.	=====	-----	% " "
Italian	.	.	.	=====	-----	% " "
Russian	.	.	.	=====	-----	% " "
Polish	.	.	.	=====	-----	% " "
French	.	.	.	=====	-----	% " "
German	.	.	.	=====	-----	% " "
Austrian	.	.	.	=====	-----	% " "
_____	.	.	.	=====	-----	% " "
_____	.	.	.	=====	-----	% " "
_____	.	.	.	=====	-----	% " "

EMPLOYMENT MANAGER

Figure 28. (d) Form for Recording Labor Turnover (fourth page)

view with the employee, where the employee refused to give a reason for leaving, where it was not possible to ascertain the reason.

"Incompetent" (22) includes those who are discharged owing to inexperience, because they are slow workers, for poor work, or for lack of knowledge of the work for which they were engaged.

"Careless" (23) covers discharges for laziness, for disregard of safety regulations, for lack of interest in the work, for unreliability.

"Frequent Absence" (24) and "Lateness" (25) need no explanation.

"Misconduct" (26) includes discharges for being under the influence of liquor, causing discontent and unnecessary trouble, violation of company rules, destruction of company property, fighting on the company premises, and other like causes.

"Insubordinate" (27) includes refusal to obey orders, use of improper language to superiors, disloyalty to superiors and the company.

Computing Labor Turnover

Now in using such a form, or a form of any sort, the next step will be the question of what formula to adopt in arriving at the percentage of labor turnover. And here we enter the field of controversy. In the definition of labor turnover adopted by the United States Bureau of Labor Statistics, and the National Employment Managers' Association at their convention in Rochester, New York, May, 1918, it was agreed that "labor turnover for any period consists of the number of separations from service during that period," and that, "separations" include all "quits, discharges, and lay-offs for any reason whatsoever." The method advanced for computing the percentage of labor turnover for any period is to "find the total separations for the period considered and divide by the average of the number actually working each day throughout the period. Then multiply by the proper factor to reduce to a yearly basis."

The following example is given to illustrate this:

If the number employed by a plant or department of a plant decreases because it is the deliberate policy of the plant

management to reduce permanently its working force, this fact should be explicitly stated and the reasons for the reduction in force given.

METHOD OF COMPUTING PERCENTAGE OF LABOR TURNOVER FOR ONE WEEK

Daily force reports (workers actually on the job):

Monday	1,020
Tuesday	1,065
Wednesday	1,070
Thursday	1,035
Friday	1,040
Saturday	990
Total Number of Separations During Week.....	300
Average for Week.....	1,037

$$\begin{array}{rcl} \text{Percentage labor turnover} & 300 & \\ & \text{---} & = 1,504 \text{ per cent} \\ & 1,037 & \end{array}$$

This is the method of computing the percentage of labor turnover in general use by employment managers throughout the country. There are, however, some slight variations, such as the following: A good many firms do not use the figure for "the average of the number actually working each day" but use the average of the number on the pay-roll each day, on the theory that those on the pay-roll (if the latter is kept free from names of workers whose employment has terminated) are an actual expense to the concern whether they are absent temporarily or not; and that a figure based on daily attendance would often be misleading. Another variation is with reference to the use of "separations" rather than "replacements" as a basis of determining the turnover percentage. When the matter is one of increasing the force of workers it is generally agreed that the number of "separations"

or those terminated from employment, will constitute the labor turnover. But when the working force is being decreased, it is claimed by some that the number of workers newly hired should be the determining factor rather than the number of terminated workers, and that if a concern decreases its force without hiring new men there is no turnover as such. Few will agree with this view.

METHOD OF COMPUTING PERCENTAGE OF LABOR TURNOVER FOR ONE YEAR

(Assuming that records of daily attendance are averaged for each month)

January	2,250
February	2,170
March	2,230
April	2,400
May	2,040
June	2,100
July	2,000
August	1,980
September	2,200
October	2,220
November	2,280
December	2,240
Total number of separations during year.....	5,020
Average for year	2,176

Average number working each month as determined from the force reports or daily attendance records:

$$\text{Percentage labor turnover, } \frac{5,020}{2,176} = 231 \text{ per cent}$$

A Practical Formula

It would seem then that, until some better method is evolved, the most practical formula for arriving at the percentage of labor turnover of a plant would be the following:

$$\frac{L}{A} = T$$

The values are:

L =Losses or the number of workers terminated

A =Average number on the pay-roll for the period
to be computed

T =Percentage of labor turnover

In other words, the figure representing the number of employees terminated should be divided by the figure representing the average number on the pay-roll for the period, whether that period is a week, a month, or a year.

When it is desired to obtain the turnover percentage for a given month, one should add the figures on the pay-roll for each day and divide the total by the number of working days in that month. This will give the value of A for use in the formula. Where it is inconvenient to obtain the number of workers on the pay-roll each day, the figures on the pay-roll each week should be added up, and the result divided by the number of weeks in that particular month.

The above-mentioned formula includes terminations for any reason; but in the opinion of the author the final turnover figure should be analyzed to show what proportion of the turnover percentage is owing to unavoidable causes, such as death, serious illness, accident, or other causes beyond the control of the management. Better still, the figure representing unavoidable losses should be deducted from the value of L before using the formula so that if U represents unavoidable terminations our formula would read:

$$\frac{L-U}{A}=T$$

If this were done, the turnover figure would be a more accurate index of losses in man-power.

APPENDIX B

ESTIMATING EMPLOYMENT COSTS—CLASSIFICATION OF PERSONS EMPLOYED¹

How Some Estimates of Costs Are Made

Realizing the importance of arriving at some general understanding of the costs involved in the turnover of labor, the author recently conducted a symposium on the subject.² One of the contributions to this symposium, made by Dr. William A. Sawyer of the American Pulley Company, offers some suggestions of value. Starting with the assumption that in the particular business under discussion, three months gives the average man ample time to reach full productiveness, Dr. Sawyer divides his costs to cover four general groups, namely:

1. Those who remain for a period of less than three weeks.
2. Those who remain for a period between three weeks and three months.
3. Those remaining for a period over three months.
4. Those engaged but not reporting.

Employees are then subdivided into general groups covering the class of labor employed and costs determined as follows:

Group 1. Those Remaining Less Than Three Weeks

New employees during this period are figured to cost a

¹ See Chapter I

² See *Industrial Management*, March, 1919, pages 239-245, reprinted in the author's "Handbook on Employment Management," H. W. Wilson Company, New York.

proportion of the daily wage of one other employee who spends time in instructing him. This figure, though arbitrary, is based on the best estimate that can be made of the earnings of the employee whose time is consumed. "To this is added an estimated figure representing the reduced productiveness of the new employee over what is normal for the older employees in the department." The sum of these two figures is classed as lost productive labor and to it is added the average overhead. The total represents the estimated cost a day.

The figures of the company show that the average employee who leaves within three weeks from the time he was started, works eight days, hence the cost for the three-week period is eight times the daily estimate. An example in the case of press hands is given:

New man consumes directly a proportion of another man's time daily estimated at.....	\$.75
Reduced speed of production for new man.....	.75
	<hr/>
Lost productive labor	\$1.50
Estimated overhead on productive labor.....	1.50
	<hr/>
Total (daily)	\$3.00

Group 2. Those Remaining from Three Weeks to Three Months

In this group it is generally found that while the productiveness of an employee increases, the percentage of improvement varies with the particular group to which he is assigned. The method here is to "multiply the daily cost by $16\frac{1}{2}$ (three weeks of $5\frac{1}{2}$ days per week) to ascertain the cost at the end of three weeks, and to this add the daily cost (now reduced owing to increased skill on part of new worker) for the rest of the period during which the worker remains. The total represents the estimated cost for the period."

Group 3. Those Remaining Over Three Months

For those who remain over three months, the above outlined plan is followed, adding to the full cost for three months the estimated cost for the average additional period.

Group 4. Those Engaged but Not Reporting

In this case Dr. Sawyer estimates the delay to cost the company a figure represented by the overhead on the amount the worker would receive for one day's productive labor; where labor is non-productive, the figure would be represented by one day's wages of the individual.

This method of arriving at the approximate costs of the shifting of personnel is an attempt in the right direction. What is important is to be sure of the factors that enter into the problem. When the person who has charge of personnel has these factors clearly in mind, he will find that a conference with one of the members of the auditing or accounting department of the concern will clear the path towards some simple method of estimating the costs regularly. Nothing dramatizes the evils of reckless employment methods, whether in a particular department of a concern or in the entire establishment, so much as the results expressed in dollars and cents. Percentages mean little; but translate a condition in terms of cash and the significance is clearly evident.

Standard cost accounting methods have yet to be applied to the technique of employment management; but the day is not far off when some uniform procedure will be the general practice in all progressive business and industrial enterprises. In the meantime all possible sources of loss must be checked up and effort made through such activities as are described in this book, to promote the stability of the working force. Such effort requires the best thought of management, and, to be successful, must manifest itself in action that indicates a sincere desire to give the worker a square deal.

APPENDIX C

SANITARY STANDARDS FOR FACTORIES AND SHOPS¹

ADOPTED BY THE COMMITTEE ON SHOP AND INDUSTRIAL
SANITATION OF THE COUNCIL OF NATIONAL DEFENSE

Dr. Geo. M. Price, Chairman of Subcommittee²

[These sanitary standards are applicable only to factories and shops where the workers do not handle industrial poisons, it being understood that special provisions for such processes and workers are to be made under other standards.]

I—DRINKING WATER

1. General Provision

There shall be provided in every factory for the use of employees a sufficient supply of wholesome, cool, drinking water.

2. Location

Drinking-water facilities should be provided on every floor of factory buildings in accessible places.

3. Fountains

Wherever practicable drinking water should be provided through bubble fountains or inverted spigots, so constructed that a person may drink from the stream or jet of water without touching his lips or mouth to the metal part of the fountain.

4. Receptacles

Whenever drinking water is placed in receptacles these shall be constructed of metal or glazed earthenware and provided with cocks and spouts and properly covered so as to prevent contamination; also cleaned at frequent intervals.

¹ See Chapter XII.

² Approved by the advisory committee of the National Tuberculosis Association as shop standards for tuberculous workers.

5. Drinking Cups

No common drinking cups or glasses should be permitted. Paper cups or individual glasses should be used.

II—WASHING FACILITIES

1. General Provision

In every factory there shall be provided and maintained for use of the employee suitable and convenient washing facilities, separate for each sex, provided with running water and consisting of single or trough sinks without plugs, or stationary basins, of a material easily cleansable and maintained in good condition.

2. Location

Washing facilities shall be conveniently located in accessible places.

3. Number

There shall be provided at least one sink or stationary basin with hot and cold water, for every 10 employees, or at least 2 feet of trough sinks for every 10 employees, or a perforated pipe with a continuous flow.

4. Floors

The floors under the basins and sinks shall be kept in good repair and in good condition.

5. Towels

The use of roller towels or any towel in common is prohibited. Paper or individual towels should be used.

6. Receptacles for Soiled Towels

Whenever paper towels are provided, receptacles for such towels shall be provided.

III—TOILET FACILITIES

1. General Provisions

Toilet facilities shall be provided in accordance with the following standards:

2. Apartment

(a) *Location.* All toilets shall be located conveniently to and easily accessible from, all places where persons are employed.

(b) *Separation.* Toilet rooms for each sex shall be maintained separate and apart from each other and from all workrooms and passageways. Such rooms shall be marked so as to designate plainly and distinctly for which sex they are intended.

(c) *Screening.* If the water-closet 's not located within a separate screened compartment in the toilet room, the entrance to all toilet rooms shall be provided with a screen to insure privacy. This screen shall be at least 6 feet in height, and shall extend to within at least 4 feet of the floor, and, if the space permits, shall be not less than 2 feet wider than the door leading into such toilet room.

(d) *Distance.* All toilet rooms not having sewer connections and maintained outside of buildings, where people are employed, shall be at least 25 feet from such buildings, and in all factories where the workers are exposed to excessive heat, humidity, or fatigue from physical exertion, there shall be a covered passageway connecting said building with toilet or toilets.

(e) *Construction.* The outside partitions of all toilet rooms shall be of solid construction, and made opaque or translucent, but not transparent, and shall extend from floor to ceiling, or such rooms shall be independently ceiled over. All partitions separating toilet rooms provided for the different sexes shall be at least 2 inches in thickness and constructed of such materials as are not transparent or translucent, and they shall be sound proof and no openings in such partitions shall be permitted. Where more than one water-closet is provided in one toilet room each water-closet shall be in a separate compartment provided with a door. The partitions and the door shall be composed of material that is opaque or translucent, but not transparent. The tops of the doors and of the partitions shall be carried either to the ceiling or to a height of 7 feet from the floor; the bottoms of the doors and the partitions shall not be more than 4 inches from the floor.

(f) *Floors.* The floors of all toilet rooms shall be tight, smooth, and constructed of a substance that shall be impervious to moisture.

(g) *Walls.* The walls of all toilet rooms shall be tight and of a substance that can be readily cleaned and kept clean.

(h) *Ceilings.* The ceilings of all toilet rooms shall be tight and of a substance that can be readily cleaned and kept clean.

(i) *Light.* All toilet rooms and water-closet compartments shall be adequately illuminated by natural or artificial light.

(j) *Ventilation.* All toilet rooms not lighted by windows that open easily shall be adequately ventilated to the outside air by artificial means. Every water-closet compartment entirely separated from the remainder of the toilet room by partitions extending from the floor to the ceiling and not provided with a window opening easily shall be adequately ventilated to the outside air by artificial means.

Every toilet room or every water-closet or urinal compartment shall have a window opening directly to the outside air. No such window shall be less than 1 foot wide nor have an area of less than 6 square feet, measured between stop heads, for one water-closet or urinal. For every additional such fixture the area of such window shall be increased at least 1 square foot. A skylight shall be deemed the equivalent of a window, provided that it has fixed or movable louvers with openings of the not openable area prescribed for such window.

Every such window shall be open upon a street or upon a yard or open space, uncovered at the top, which in its least horizontal dimension shall be at least one-tenth the height of the highest abutting wall, but in no case less than 6 feet.

(k) *Heating.* All toilet rooms and water-closet compartments shall be adequately heated at all times.

(l) *Cleanliness.* The occupier shall be responsible for the maintenance of all toilet rooms or water-closet compartments in a clean and sanitary condition.

3. Fixtures

(a) *Kind.* The use of any form of trough water-closet or latrine or school sink is prohibited; individual closets shall be provided. The bowls of all water-closets shall be smooth, impervious material. Pan, plunger, wash-out, faucet, and long hopper closets are not permissible. The seat shall be finished with a smooth, impervious, waterproof substance.

(b) *Connections.* The disposal of all contents of toilets and urinals shall be in accordance with the laws, rules, and regulations of the state and municipal health authorities of the locality in which they exist.

Privies shall not be permitted except in cases outside of the sewer zone, and where cesspool or septic tank can not be used privies

not connected with the sewerage system shall be built in accordance with the standards recommended by the United States Public Health Service.

Provisions shall be made for the adequate flushing of every water-closet.

(c) *Number and ratio.* Water-closets shall be provided in accordance with the following table:

Number of Persons	Number of Closets
1 to 20	1
21 to 40	2
41 to 60	3
61 to 80	4
81 to 100	5
101 to 150	6

For each additional 30 persons, at least one additional water-closet shall be provided.

4. Urinals

(a) *Kind.* Urinals provided shall be either individual urinals or slab urinals. At least 2 feet of slab urinal shall be considered the equivalent of one individual urinal.

(b) *Construction.* Urinals shall be composed of smooth material impervious to moisture.

(c) *Connections.* All urinals shall be connected by waste pipes to sewers or cesspools, which sewers or cesspools shall be constructed in accordance with the laws, rules, and regulations of the State and municipal health authorities of the locality in which they exist.

Unless water runs continuously over the walls of the urinal each urinal shall be provided with an adequate water flush. When individual tanks are used, the flushing shall be accomplished by pedal action.

(d) *Number and ratio.* Where more than 10 males are employed at any one time, urinals shall be supplied according to the following table:

Number of Men	Number of Urinals	Or Feet of Slab Urinal
10 to 50	1	2
31 to 60	2	4

For each additional 50 men employed at least one additional urinal or 2 additional feet of slab urinal shall be supplied.

The above standards shall apply in all cases except where federal, state, or municipal laws, rules, or regulations of more restrictive character are applicable; in such instances, the more restrictive laws, rules, or regulations shall apply.

APPENDIX D

PLAN FOR SHOP SAFETY ORGANIZATION¹

Following is the plan for shop safety organizations, worked out by the Bureau of Statistics and Information of the State Industrial Commission (New York).

INTRODUCTION

VALUE OF SHOP SAFETY ORGANIZATION

The indispensable function of accident prevention and maintenance of cleanliness and orderliness is carried on haphazardly in most manufacturing plants. Instead of centralizing the work in the care of one person, it is generally divided up and parts are added to the other duties of several of the managerial staff. As the management and its subordinates are mostly preoccupied with the more pressing responsibilities of production and marketing, shop safety, sanitation, and health usually receive but incidental and unsystematic attention. Even where the management assigns a person to supervise this work, its failure to realize the significance of this phase of shop management often leads it to choose one who can be spared rather than one best qualified for this highly important task. Yet these matters vitally affect the compensation insurance premium as well as plant output. Practical business men, who have resorted to this form of shop activity, testify enthusiastically that a safe and sanitary shop not only means fewer accidents but a more efficient working force. Since it is good business to prevent accidents and maintain orderliness and cleanliness in the factory, supervision of the work is assigned to a competent person, who can give to it whatever time is required in accordance with the size of the working force and the hazard of the industry.

Notwithstanding that a large percentage of the accidents can be prevented only by the good-will and co-operation of the employees, the average employer has done little to enlist their aid. He relies upon safeguards alone, whereas, a cursory study of his accident

records would indicate that a large proportion of accidents cannot be prevented by them. Those employers who are aware of this fact arrive at the hasty conclusion that the worker is "careless." This opinion, if voiced publicly, instead of imbuing the workers with cautiousness and a desire to co-operate with the management actually stirs up "bad blood." Very few employees are deliberately careless. The ordinary employee generally subjects himself and fellow-workers to danger because it has not occurred to him that he is going about his work in an unsafe manner. The same can be said with reference to maintaining cleanliness and orderliness in the shop. The remedy is to educate and interest the worker in "safe and sanitary practices." But signs and posters alone are inadequate. Success in such matters can best be attained with the co-operation of the employees. Hearty co-operation has been secured in those plants where the workers have been made responsible for their share of plant accident prevention and maintenance of cleanliness and orderliness. To interest the workers, they must be given definite responsibilities and duties. Human beings learn by doing and sharing in responsibilities. Wherever this principle has been adopted and properly applied the workers have responded most enthusiastically.

Manufacturers who have a cohesive shop safety, sanitation and health organization, guided by a competent person, point to the following as some of the more obvious benefits of such an organization:

It relieves the management and its subordinates from attending to the numerous details connected with maintaining orderliness, cleanliness, and safety in the shop.

It provides a medium through which these matters, so vital to the successful and economical operation of the plant, will receive the consideration they merit without encroaching upon the time required for other business problems.

It enlists the co-operation of all employees from the superintendent to the rank and file worker by introducing collective responsibility.

It furnishes a means of interesting the rank and file whose co-operation is absolutely necessary in the successful conduct of a shop safety sanitation and health organization.

It systematizes the work so that maximum results ensue from the time devoted to this phase of shop activity. Nothing is more wasteful and ineffective than haphazard methods.

It provides a check on the efficiency of safety work.

It makes possible the accumulation and exchange of knowledge and experience in shop safety, sanitation, and health work.

It makes possible the creation and perpetuation of an enthusiasm and "safety first" spirit without which the best intentions are but vain dreams.

PART I

PURPOSE AND ORGANIZATION

Purpose

Prevention of accidents and the promotion of the general good order, hygiene, and sanitation of a manufacturing plant can be most successfully accomplished when there is a hearty co-operation between the management and its employees. It is to their mutual interest to work harmoniously in such matters. While the company loses financially whenever an accident occurs or a worker is obliged to lay off because of sickness, the employee is the greater sufferer in such cases. He must bear the pain, and, regardless of the amount of financial compensation awarded to an employee, it does not equal his earnings.

With this consideration in view a shop safety, sanitation and health organization is instituted to establish standards for the reasonable and adequate protection of the lives, health, and safety of all persons employed by the (insert name of firm).

The (insert name of firm) and those in its employ obligate themselves to maintain such standards to the best of their ability and to the full extent of their power.

Organization

The shop safety, sanitation and health organization shall consist of the following divisions: Executives' committee, foremen's committee, workers' committee, and safety supervisor.

Executives' Committee

This committee shall be composed of at least three persons from the executive authorities representing the general management and operating or production branch of the plant.

The *functions* of this committee shall be as follows:

1. Have general charge of and supervision over all matters affecting the safety and health of the employees.

2. Pass upon reports and recommendations made by the foremen's and workers' committees, and the safety supervisor.

3. Pass upon general plans for the conduct of accident prevention and health conservation work.

4. Review comparative data as to accident frequency and severity in the plant.

5. This division shall (should) furnish satisfactory reason to the other divisions whenever it vetoes or modifies recommendations submitted for its consideration.

6. This division shall (should) submit new policies or proposed deviations from established policies to the consideration of the other divisions comprising this organization.

7. This division may delegate as much of its authority as it chooses to other divisions comprising this organization, provided due notice of such action shall be given in writing to all divisions.

8. This division shall meet at least quarterly. (Monthly meetings are preferred by many.)

Foremen's Committee

This committee shall be composed of not less than five foremen and subforemen (in some plants membership of all foremen is considered desirable) chosen as follows:

- (a) By the executives' committee, or
- (b) By the foremen and subforemen

This division shall choose its chairman from among its membership.

Rotation in membership by periodic changes in personnel may be provided for.

The *functions* of this committee shall be as follows:

1. Make quarterly inspections for the purpose of standardizing the safety, sanitation, and health work throughout the plant. (In some plants monthly inspections are considered desirable.)

2. So far as possible investigate at time of occurrence all serious accidents and report thereon.

3. Discuss accidents or near accidents in the plant, determine responsibility and attempt to devise means of preventing recurrence.

4. Consider ways and means of furthering safety, sanitation, and health work in the plant.

5. Formulate rules for instructing workers in "safe and sanitary practices."
6. Consider communications from executives' committee.
7. Consider recommendations and reports of the workers' committee.
8. Consider recommendations and reports of the safety supervisor.
9. Receive reports from individual committee members on personal activity in the furthering of shop safety, sanitation, and health work.
10. Receive information from safety supervisor on accidents, sanitation, and health.
11. This division shall meet at least once a month.

Workers' Committee

This committee shall be composed of not less than five wage workers from the rank and file of the employees and representing the major departments or occupations. (Workers holding a position of even minor authority, such as "working boss," or "subforeman," are not eligible to serve on this committee.)

Members of this committee may be chosen according to any of the following methods:

1. The wage workers of each department or occupation to elect their representative (this method of choosing the workers' committee is the best means of securing the right co-operation), or
2. The executives' committee to elect the initial workers' committee, and the wage workers of each department or occupation to fill future vacancies by election, or
3. The executives' committee to select the initial workers' committee, and the members of the latter body to designate from time to time their successors, or
4. By the executives' committee, upon consultation with the foremen.

Rotation in membership by periodic changes in personnel may be provided for.

This division shall choose its chairman from among its membership.

The division may upon occasion invite the executives or foremen to its meetings.

Members of this division doing piece, task, bonus, or premium work shall be compensated on the basis of their average hourly

earnings when attending committee meetings or making inspections during working hours. Members paid by the hour, day, or week shall receive the usual pay while attending committee meetings or making inspections during working hours.

Members of this division shall be compensated on the basis of the regular rate of pay when attending committee meetings or making inspections outside of working hours.

The *functions* of this committee shall be as follows:

1. Make at least monthly (preferably semimonthly) inspections of the plant—collectively where practicable. If this is not practicable individual committee members may inspect the departments they represent, or that portion of the plant most familiar to them. At least a quarterly inspection of the whole plant shall be made collectively by the committee. A report of every inspection should be prepared and signed by the entire committee.

2. So far as possible investigate at time of occurrence all serious accidents and report thereon.

3. Discuss accidents or near accidents in the plant; determine responsibility and attempt to devise means of preventing recurrence.

4. Consider ways and means of improving safety, sanitation, and health conditions in the plant.

5. Make recommendations for elimination of unsafe and unsanitary conditions in the plant.

6. Consider communications from the executives' committee.

7. Consider recommendations and reports of the foremen's committee.

8. Consider recommendations and reports of the safety supervisor.

9. Consider recommendations and reports of individual committee members, or any other wage workers.

10. Receive reports from individual committee members on personal activity in furthering "safety first" ideas among fellow workers.

11. Receive information from safety supervisor on accidents, sanitation, and health.

12. This division shall meet at least monthly (preferably semimonthly).

The *duties of individual members* of this committee shall be as follows:

1. Committee members shall interest fellow workers in the "safety first" idea.

2. Committee members shall caution fellow workers whenever they resort to unsafe and unsanitary practices.

3. Committee members shall present safety, sanitation, and health suggestions of fellow workers to the workers' committee for action.

Safety Supervisor

The safety supervisor shall be appointed by and be responsible to the management. (The management should authorize the safety supervisor to expend reasonable sums of money in furtherance of the safety sanitation and health work, and to give orders necessary to the carrying out of his duties, his actions to be reviewable only by the general manager or general superintendent. His standing should be at least equal to that of head of a department or foreman, and in large plants he should receive clerical and other assistance necessary to relieve him from the routine work.)

The *duties of the safety supervisor* shall include the following:

Inspection and Investigation

1. Become thoroughly familiar with the structural and other physical conditions of the buildings, and the layout of the equipment and premises.

2. With a view to eliminating unsafe, unsanitary, and unhealthful conditions inspect plant constantly for:

- (a) Need of safeguards.
- (b) Maintenance of old guards, general order and cleanliness.
- (c) Arrangement of materials, tools, and equipment.
- (d) Lighting, ventilation, and physical condition of buildings.
- (e) Conditions on premises.

3. Look after fire conditions, extinguishers, filling of fire pails, keeping exits clear and exit signs in good condition.

4. See that first aid equipment is properly stocked and kept in proper place.

5. See that approved recommendations are carried out and report thereon to respective committees.

6. Investigate all accidents or near accidents, fix responsibility, and make recommendations to prevent their possible recurrence.

7. See that drawings and specifications for new machinery cover guarding of hazardous parts, and inspect new machinery before it

is permanently installed to see that the necessary safeguards have been provided.

8. See that drawings and specifications for alterations, extensions, and additions to plant have proper safety, sanitation, and health provisions.

Supervision

1. Administer first aid, or supervise those assigned to administer it.
2. Keep in touch with injured persons requiring medical treatment while at work, as well as with those whose injuries necessitate their absence from work.

Information and Education

1. Keep himself informed of latest developments in the "safety first" movement through literature, attending conferences, conventions, lectures, exhibits, visiting other plants, and so on.
2. Maintain "safety first" library for reference and use of every one in the plant.
3. Supply committee members, foremen, and rank and file wage workers with readable "safety" literature.
4. Make brief reports at committee meetings on topics of interest appearing in current "safety" literature, or which have otherwise come to his attention.
5. Report at committee meetings on activities of other divisions of this organization.
6. Supervise and conduct educational work on safety, hygiene, and sanitation through committees, bulletins, lectures, etc.
7. Stimulate interest in safety, sanitation, and hygiene among foremen and rank and file wage workers through personal contact.
8. Prepare, post, and maintain danger signs, bulletins, and bulletin boards.
9. Co-operate with foremen concerned in giving advice and instruction to new employees as well as with old employees who do not fully understand the safe method of performing their work.
10. Caution backward employees against unsafe and unsanitary practices.

Records and Accident Statistics

1. Keep records and statistics of accidents and sickness, and make monthly and special comparative reports to the executives'

committee. Copies of such reports are also to be furnished the other committees.

2. Attend all regular or special meetings of all committees, and act as secretary and custodian of minutes and other records.

3. Supply copies of reports and recommendations of each division to the other divisions for their consideration.

4. Act as intermediary for the various divisions.

PART II

SPECIAL RULES GOVERNING ORGANIZATION AND EMPLOYEES

Joint Meetings

1. Regular joint meetings of the shop safety, sanitation and health organization should be held at least quarterly to consider:

(a) Preventive ideas.

(b) Suggestions for general safety, sanitation and health.

(c) Special recommendations made by any division involving an unusually large expenditure.

(d) Means of safeguarding new machinery or equipment, or new additions to plant.

2. Special joint meetings of the shop safety, sanitation and health organization should be called by the safety supervisor promptly after the occurrence of a serious accident of exceptional character in order to fix responsibility and consider measures to prevent its recurrence.

3. Special joint meetings of the shop safety, sanitation, and health organization should be called by the safety supervisor whenever all divisions cannot agree on recommendations, deviations from all policies, or proposed new policies.

4. Either committee may at any time call a special joint meeting to consider matters of vital importance.

Amendments

1. Amendments to the shop safety, sanitation and health organization plan may be initiated by any of the divisions composing the organization, provided they shall become effective,

(a) After submission to the foremen's committee, and when

favorably passed upon by the executives' and workers' committees (this is the most desirable method), or

- (b) After consideration and report by the foremen's and workers' committees, and approval by the executives' committee, or
- (c) When favorably passed upon by the executives', foremen's and workers' committees.

2. Agreeable to the executives' and workers' committees, amendments to the shop safety, sanitation and health organization plan that would alter it materially may be submitted to a vote of the rank and file of the wage workers, provided the amendments are first submitted to the foremen's committee for consideration and report.

3. Amendments to the shop safety, sanitation and health rules may be initiated by any of the divisions composing this organization, provided they shall become enforceable,

- (a) After submission to the foremen's committee, and when favorably passed upon by the executives' and workers' committees (this is the most desirable method), or
- (b) After consideration and report by the foremen's and workers' committees, and approval by the executives' committee, or
- (c) When favorably passed upon by the executives', foremen's and workers' committees.

VIOLATIONS OF SHOP RULES

1. Penalties for violations by wage workers of shop safety, sanitation and health rules may be imposed.

- (a) By the workers' committee, subject to approval by the foremen's and executives' committees (this is the most desirable method), or
- (b) By the safety supervisor, subject to approval by the executives', foremen's and workers' committees, or
- (c) By the safety supervisor, subject to approval by the general manager, or
- (d) By the foreman, subject to approval by the general superintendent.

Foremen's Duties

1. Foremen and subforemen are morally bound to give special and constant attention to the proper instruction and observation of

new employees so as to protect them against accidents. Old employees when placed on new work should also be instructed as to the hazards of that work.

2. Foremen and subforemen should study and guard against conditions and practices in the plant that are apt to endanger the life, limb, and health of the workers.

Workers' Duties

1. Each employee should regard himself in honor bound to cooperate with the management to reduce accidents and to maintain orderliness and cleanliness in the plant by observing the shop safety, sanitation and health rules.

2. The employees of this plant regard it a reflection upon their honor for an injured worker to feign incapacity to work, or attempt to artificially prolong such incapacity.

PART III

RULES FOR GUIDANCE OF MEMBERS ON FOREMEN'S AND WORKERS' COMMITTEES, AND THE SAFETY SUPERVISOR

How to Inspect

1. In making inspections the one question which should be asked is: Can an accident occur? Not: Has an accident occurred at this particular point?

2. Remember, it has been conclusively demonstrated that practically every point of danger around machinery or the buildings can be sufficiently guarded without interfering with the work.

3. Follow the oiler. Remember he must oil every bearing in the shop. Visit each bearing and satisfy yourself on one question: Can the oiler reach it in safety? If not, correction should be made at once.

4. Make it a point to inspect out-of-the-way places as well as more obvious hazards. It is surprising how many persons are injured in places where it has been said, "Nobody ever goes."

5. Conditions in yards and on roadways and passageways are always changing. They should be frequently inspected to find dangerous piles, defective floors, protruding nails and objects over which a man may stumble and fall.

Look Out for Unsafe Practices and Conditions

1. Keep a sharp lookout for all kinds of unsafe practices and conditions. Remember a large proportion of accidents are directly attributable to ignorance of the safe way of doing the work, or unsafe plant conditions not easily detected.

2. A good guard out of place is a poor guard. See that guards are kept in use. Particularly watch adjustable guards on such machines as saws, joiners, shapers, emery wheels, and punch presses.

3. Watch for loose sleeves, flapping blouses, and flying neckties—anything which may get caught in the machinery and draw the man or woman in.

4. Bear in mind that the following are among the main causes of accidents:

The manner in which a worker handles himself or performs his work.

Fall of workers from elevations; into openings; or on level by slipping, stumbling, etc.

Falling objects from elevations or on level because improperly piled, stacked, etc.

Handling of tools or objects.

5. Try to detect slight cuts, scratches, bruises, and burns which are not being properly cared for. They may cause infection and blood poisoning. Remember that the great majority of all infections are the direct result of neglecting small injuries.

Guarding of Machinery

1. Become familiar with all the requirements of the Labor Law and Industrial Code as to guarding of machinery and see that none of these are overlooked. For information as to these requirements, write to the Bureau of Inspection, State Industrial Commission, Capitol, Albany, N. Y., or 230 Fifth avenue, New York City.

2. Become familiar also with the safety standards of the Compensation Inspection Rating Board, 135 William street, New York City. This is a semiofficial body in which all compensation insurance carriers are represented. The "Hand Book of Industrial Safety Standards," issued by this board, and which will be furnished free upon request, reflects the requirements of compensation insurance carriers with reference to guarding of machinery.

What to Study—Machinery and Plant Layout

1. Study the present arrangement and guarding of machinery and suggest better safety appliances to prevent accidents.

2. Study the general layout of the plant with a view to detecting faulty engineering:

- (a) In construction of the buildings
- (b) In installation of the equipment
- (c) In the arrangement of the premises

Often serious accidents are charged to these defects.

3. Study the present method of storing and handling of materials and objects, and help prevent unsafe conditions and practices by watching daily and suggesting better methods. Also help prevent overloading of floors.

4. Study how to reduce unnecessary sounds, vibrations, and noises.

5. Study the best kind of clothing to be worn to guard against danger.

Lighting, Ventilation, and Sanitation

1. Study the present lighting arrangements. Help eliminate all dark and unsafe spots by suggesting a better arrangement, so that all parts of the factory may be properly and adequately lighted.

2. Study the present ventilating system and suggest possible improvements.

3. Study how to keep workrooms, washrooms, and toilet rooms clean and sanitary and free from obscene pictures and writing.

4. Study and suggest methods of guarding against diseases.

5. See that the supply of drinking water is always kept clean and pure and that the pipes, etc., are in working order.

6. Help prevent the accumulation of waste materials and rubbish.

Fire Hazards

1. Study the best methods to guard against and minimize fire hazards.

2. Discourage smoking in prohibited places and urge the use of safety matches.

Report Blanks

In order to properly record and preserve the findings and recommendations of the safety supervisor and the workers' committee,

uniform report blanks should be supplied for this purpose. Nothing is more convincing of the importance and seriousness of the duties of this kind of an organization than systematic maintenance of records. Supplying the blanks in pad form would make them handier for use when on an inspection tour.

Compensation insurance carriers furnish blanks for reports of safety organizations in plants of their policyholders. Aside from these the following are suggested as forms which are proving highly satisfactory to a firm with plants distributed throughout the state of New York and the United States. They have been modified to meet the general needs of most medium and large-sized manufacturing plants:

Name of firm

Regular Report of Workers' Committee

Date of Report....., 192... Date of last report....., 192...

A.—The following departments have been inspected since last report:

B.—The following unsafe practices in our opinion exist (give location):

C.—The following unsafe conditions were found (this refers to conditions, not individuals):

D.—The following recommendations are made (use back of report or attach letter if necessary):

Date of last meeting of committee,, 192..

Chairman

Members

Copy of this report delivered to executives' committee,
....., 192..

Name of firm

Regular Report of Safety Supervisor

Date, 192.. Date of previous report, 192..

Inspections since last report include following departments:

.....
.....

A.—Defects including lack of or improper guards and location of same:

B.—Wrong conditions are as follows:

C.—Unsafe or dangerous practices are as follows:

D.—Defects, wrong conditions, unsafe or dangerous practices reported which have been corrected:

E.—Items previously reported which have not been corrected, because of:

F.—Recommendations (use back of report or attach letter when necessary):

Copy of this report delivered to executives' committee.

....., 192..

.....,

Supervisor.

Copy of last workers' committee report, dated....., 192..

Date of last meeting of workers' committee....., 192..

Date of last meeting of foremen's committee....., 192..

PART IV

SHOP SAFETY, SANITATION, AND HEALTH RULES

Statement

Only a certain proportion of the accidents occurring daily can be prevented by mechanical safeguards. Many accidents not preventable by safeguards are caused by "unsafe practices," that is, by the worker performing his work or conducting himself in the shop so as to subject others or himself to danger. Similarly, many of the problems of shop sanitation and hygiene which vitally affect the comfort and health of the worker cannot be solved by mechanical devices.

This statement is not intended to absolve the employer from responsibility in such matters, nor to charge the employee with deliberate, unsafe practices or neglect of shop sanitation and hygiene. These dangerous and unwholesome methods are practiced because neither the worker nor employer realize that they often result disastrously—frequently to innocent fellow-workers. The following rules are, therefore, intended to call attention to the most common, unsafe, and unhygienic practices. By a strict observance of these rules it should be possible to practically eliminate the accidents and discomforts due to unsafe and unhygienic practices.

Employees should also be on guard against other less common unsafe and unhygienic practices that might lead to serious consequences.

Remember: *A careful man is the best safeguard.*

1. Be cautious and alert at all times, and under all circumstances.
2. Conduct yourself at all times in an orderly and careful manner. Scuffling, playful wrestling, or any other kind of horse play is dangerous.
3. Never disregard a warning sign.
4. Do not go across dangerous places, nor through them, merely to save a few steps or a few seconds of time.
5. Be careful in going up or down stairs.
6. Do not throw articles of any kind out of windows.
7. Do not spit upon the floors, passageways, walks, or in corners.
8. Never fail to use a safeguard provided, and under no condition remove a safeguard unless you are authorized to do so.
9. Never repair or clean machinery when in motion.
10. Do not wear loose or torn clothing, loose neckties, dangling sleeves, aprons, gloves, loose suspender straps, unbuttoned jumpers, or pants with cuffs when working around the moving parts of machinery.
11. Goggles must be worn in all operations by workers doing any work where there is danger of flying particles, such as chipping of concrete or any kind of metals, handling of molten metal, using unprotected grinding wheels, etc.
12. Never use an elevator without permission from those in authority. Never attempt to step or jump on or off a moving elevator.
13. Examine all tools before using them. No tools should be used, or issued, having "burred" or "mushroom" heads, defective or loose handles.
14. Tools, appliances, materials, or equipment must not be left in aisles or passageways.
15. Broken, weak, or rickety ladders should never be used. Ladders should always rest upon a level surface, and special care should be taken so as to prevent them from slipping at the foot or at the top.
16. In piling up materials, be careful to stow them so that they cannot fall over. Also guard against the overloading of floors or racks.
17. If a nail is protruding from a board, knock it down or bend it over.
18. Washrooms and toilet rooms must always be kept clean and sanitary.

19. Maintain your self-respect and that of your fellow-workers by neither drawing obscene pictures nor writing obscene matter on walls, doors, etc. If you do not practice such indecencies, do not countenance them from others.

20. Never play or tamper with any fire fighting apparatus. If it is not ready for use when needed, it may contribute to serious injury to yourself or fellow-workers.

21. It is the duty of every employee to report every unsafe or dangerous condition or practice he sees either to his foreman, representative on the safety committee, or safety supervisor.

22. Call attention of your foreman when there is insufficient light about machinery or passageways.

23. Call attention of your foreman to any lack of proper ventilation.

24. If you are injured, no matter how slightly, report it to your foreman at once.

25. Be careful in everything you do. Take no chances. Remember that small neglects and oversights often cause serious accidents. Warn other men when you see them in danger, and try to get them to do things in a safe way. Look out for new workers and see that they do not meet with accidents, nor expose others to danger. Talk freely about safety with other employees, and remember that safety and sanitation suggestions are always welcome.

26. Watch carefully for new rules that may be adopted from time to time.

PART V

SAFETY LITERATURE AND INFORMATION

The movement for prevention of accidents and conservation of health of wage workers, like all human movements, depends for its success on the proper mental attitude of those affected by it. This fact assumes greater significance in this phase of industrial betterment, since the best results are attained only when mechanical safeguards and devices are supplemented by the good-will and hearty co-operation of the personnel connected with the plant. Current literature treating all phases of this movement is indispensable. The proper psychology cannot be maintained without constant contact with the movement. The safety supervisor can hardly be expected

to imbue others with the "safety first" idea unless he has a continuous source of inspiration which will stimulate his intellect and emotions. A minimum of literature required to successfully keep alive the "safety first" spirit is listed below:

Government Publications

1. Have Bureau of Statistics and Information of the New York State Industrial Commission, Capitol, Albany, place firm on permanent mailing list for

- (a) Proceedings of the Annual State Industrial Safety Congress.
- (b) Monthly Bulletin.
- (c) Bulletin No. 77, and other literature issued from time to time on safety, sanitation, health, and general employee relations problems.

2. Request United States Bureau of Labor Statistics, Washington, D. C., to place name of firm on permanent mailing list for *Monthly Labor Review*. For current literature dealing with safety, sanitation, health and general employee relation problems, consult "Publications Relating to Labor" in each issue of the *Review*. Publications issued by the U. S. Bureau of Labor Statistics will be mailed free upon request, if still in print.

3. Request Surgeon General, United States Public Health Service, Washington, D. C., to place name of firm on permanent mailing list for reprints from weekly Public Health Reports and supplements on the health of industrial workers.

Additional Literature and Bibliographic Information

1. The State Industrial Commission also places the Bureau of Statistics and Information, Capitol, Albany, at the service of anyone interested in any safety, sanitation, health, and general employee relations problems literature through loan of printed matter from its library or through bibliographic information.

2. There are a few periodicals published which give attention to material on industrial safety and are designed for both technical and popular reading. Upon specific request the Bureau of Statistics and Information will gladly supply the names of such periodicals as will meet the needs of the individual firms for use of the foremen, workers and safety supervisor.

Co-operative Safety Associations

1. The American Museum of Safety, 14 West Twenty-fourth street, New York City, renders service to engineers, inspectors, and industrial firms. It has maintained for a number of years a permanent exhibit of approved safety and sanitary appliances. The museum's resources include an inquiry and research service, a highly specialized library, inspection service, lectures, and traveling exhibits illustrating various phases of accident prevention and health conservation, as well as a monthly bulletin, *Safety*, a technical non-commercial publication, free to members. To non-members the subscription price of the bulletin is \$1 per year.

2. The National Safety Council, 208 La Salle St., Chicago, Ill., renders a safety service which consists of a weekly bulletin service, special publications and a consultation safety service. Membership dues are based on the nature of service rendered and the number of employees on the pay-roll.

PART VI

APPENDICES

Announcement of the Plan for Shop Safety Organization

The imperativeness of giving proper publicity to the new organization cannot be overemphasized. Unless the rank and file workers know that such an organization is in existence, are fairly conversant with its purpose, and feel that it has the management's unqualified approval, it will be difficult to secure their co-operation. Indeed there is danger that the whole undertaking may turn out to be a farce. The most effective method of publicity is to call a mass meeting of the workers, wherever possible, at which the purpose of the organization and its functions should be explained by someone high in authority. Should this not be practicable, a printed announcement is a fair substitute. (Manufacturers will find it worth while to use both methods.)

The following statement, signed by the firm, is suggested as a sample for a poster or dodger to be distributed or inserted in the pay envelope when the organization is launched. The membership of the workers' committee and the occupation or department that each member represents might be incorporated in the statement:

Announcing the Formation of a Safety, Sanitation and Health
Organization of the

.....
(Insert firm name.)

The (insert firm name) has always been solicitous for the comfort and safety of its employees. In pursuance of this policy it has done everything practicable to safeguard the life, limb, and health of the workers. The New York State Industrial Commission has brought to our attention a method of systematizing plant safety, sanitation, and health work so that it will be placed on as business-like a basis as any other phase of plant management. The plan which they recommend is being used by many progressive manufacturing firms in the state, and is bringing excellent results. Its chief merit is that it enlists the mutual co-operation of everyone in the plant, from the superintendent to the rank and file worker. *We particularly appeal to the rank and file workers in our plant to assist us in this worthy endeavor.* You spend the best part of each day in the plant, and some unsafe and unsanitary conditions and practices come to your attention that we may overlook. We want to remedy these shortcomings and invite suggestions from everyone.

The organization will consist of three committees—one representing the management, one the foremen and one the workers in the plant. (Indicate here how the workers' committee will be chosen, and, if possible, the members of the first committee, also give the name of the safety supervisor.)

The workers' committee has been chosen to work for *you*. The duty of this committee is to study ways of protecting *you*, of promoting *your* comfort and safeguarding *your* health while you are in this building. In some cases changes suggested by this committee have to do with machines or equipment. In other cases the committee finds that certain practices among the people in the various departments are not for the best interests of all. If through thoughtlessness or ignorance anyone in the building is doing something that endangers *your* health or safety or comfort, it is the duty of the committee to see that this practice is stopped. If the committee fails to do this, they fail to protect *your* interests.

In other words, the committee points out certain unsafe and unsanitary practices and conditions that endanger *you*, and recommends certain improvements that should be made in *your* interest. Don't

you think that the *committee* in their work for you should have your help and co-operation?

Promotion of Safety Sentiment

If the shop safety, sanitation and health organization plan is issued in pamphlet form, space on the cover or elsewhere might be used for brief matter to promote the safety sentiment. The following is an example of such matter found in safety literature:

The "Safety First" Ideal

"And the end is that the workman shall live to enjoy the fruits of his labor; that his mother shall have the comfort of his arm in her age; that his wife shall not be untimely a widow; that his children shall have a father; and that cripples and hopeless wrecks who were once strong men, shall no longer be a by-product of industry."—P. B. JUHNKE.

APPENDIX E

TERMS OF APPRENTICESHIP AGREEMENT¹

1. Applicants for apprenticeship must be not less than sixteen years of age. They must be physically sound, of good moral character, and have received an education equivalent to that required for graduation from the public grammar school or better.

2. Application must be made in person. If accepted, the applicant's name will be registered and due notice will be given when he will be required to commence work.

3. The first 576 hours shall constitute a term of trial. If the apprentice shall during this period prove satisfactory and shall before the expiration thereof execute together with some other responsible party an agreement in the form hereto annexed, then his apprenticeship shall date from the beginning of the term of trial and shall continue for the full term unless sooner terminated, as hereinafter stated.

4. During his training the apprentice will be loaned the necessary shop tools and classroom materials. At graduation the set of shop tools shall thereupon become the property of the apprentice.

5. Apprentices will be required to serve for a term of four years, each to consist of 2,400 hours, including about 200 hours in the school-room per year.

6. Apprentices shall make up lost time at the expiration of each year, at the rate of wages paid during said year; and no year of service shall commence until the apprentice shall have fully made up all the time lost in the preceding year.

7. The company reserves the right whenever the state of business demands it, to shorten the hours of labor or whenever for any reason it shall stop the working, or suspend wholly or in part; and the making up of lost time in this way shall be at the discretion of the company.

8. The apprentices will be required to perform their duties with

¹ See Chapter VII.

punctuality, fidelity, and diligence; and to conform to the rules and regulations which are, or may be, adopted from time to time for the good government of the shop; and the company reserves the right to itself, at its sole discretion to terminate an agreement, and discharge the apprentice from further service for any non-conformity with rules and regulations, want of diligence to his business, or improper conduct in or out of the shop.

9. In case of discharge, or in the event that said apprentice shall abandon his apprenticeship before the expiration thereof, without the consent of said company, the apprentice shall forfeit all wages then earned and unpaid.

10. Apprentices will be paid for each hour of actual service including the time spent in the classroom. For the first year, including the trial period, he will receive 12.5 cents per hour, for the second year 18 cents per hour, for the third year 22 cents per hour, and the fourth year 26 cents per hour.

11. Apprentices will be allowed to increase the above-mentioned rates of wages on the piece-rate system wherever the latter may be found practicable.

APPRENTICE AGREEMENT

This Agreement is made this.....day of.....19....
between THE REMINGTON ARMS, UNION METALLIC CARTRIDGE COMPANY,
INCORPORATED, doing business in BRIDGEPORT, CONNECTICUT, hereinafter
known as "Company" and.....
of.....hereinafter known as "Apprentice,"
andof
.....hereinafter known as "Guardian," whose relationship to the
Apprentice is that of.....

For the purpose of acquiring the Art or Trade of MACHINIST AND
TOOLMAKER said.....hereby
becomes an Apprentice to the Company and the Company hereby accepts
him subject to the terms herein stated.

The Apprentice and his Guardian hereby promise that the Apprentice
shall conform to and abide by all the provisions of this agreement, and
shall faithfully serve the Company during the full period of time named
in this agreement.

The Apprentice agrees during the period of his apprenticeship to
do all in his power to learn said art or trade and earnestly and loyally
to promote the interests of the Company. He also agrees to pursue
classroom studies when they are required and arranged for by the Com-
pany and in that case to do a reasonable amount of home-study in
preparation thereof.

It is agreed by the Apprentice and his Guardian that the Company shall have the right at any time to discharge the Apprentice for lack of diligence, indifference to business, inability for the works, disobedience of rules and regulations of the Company, or improper conduct in or out of working hours and to suspend him if the state of business should demand it.

In consideration of the agreements on the part of the Company herein contained the said Apprentice agrees that he will pay the Company the sum of \$25 said sum to be paid by said Apprentice at the expiration of the term of trial referred to in said "Terms of Apprenticeship," this to be returned to the Apprentice upon graduation.

The Company agrees to train and instruct the Apprentice in said art or trade and to pay him compensation as specified in this agreement for his services as Apprentice. The Company also agrees that if the Apprentice shall remain in its service for the full period of his Apprenticeship, including whatever period is required to make up lost time, and shall in every way comply with the terms of this agreement, to present to the Apprentice at the termination of his apprenticeship a bonus of ONE HUNDRED AND FIFTY DOLLARS-(\$150) and a Certificate of Apprenticeship signed by an officer of this Company.

This agreement shall cover a period of FOUR years including a trial period of 576 working hours. Each year shall consist of 2,400 working hours.

The Apprentice shall receive from the Company during the period of apprenticeship the following compensation, to wit: .

12½	cents	per	hour	for	the	first	year
18	"	"	"	"	"	second	"
22	"	"	"	"	"	third	"
26	"	"	"	"	"	fourth	"

THE REMINGTON ARMS	
UNION METALLIC CARTRIDGE COMPANY, INC.	.....
	APPRENTICE
PER.....	.....
	GUARDIAN

Signature must be written in full and with ink

APPENDIX F

BY-LAWS DODGE MUTUAL RELIEF ASSOCIATION¹

ARTICLE I

Section 1. The name of the association shall be Dodge Mutual Relief Association, and may be designated by the initials D. M. R. A.

Section 2. Its headquarters shall be at Mishawaka, St. Joseph County, Indiana.

ARTICLE II—OBJECT

Section 1. The object of this association shall be to secure, at a minimum cost, the mutual relief of members in cases arising from accident, sickness, quarantine, and death among employees of the Dodge Manufacturing Company, and its subsidiary companies, and to enable them to avoid the necessity of appealing for charity; also to promote the general welfare of its members.

ARTICLE III—MEMBERSHIP

Section 1. Anyone while an employee of the Dodge Manufacturing Company, or its subsidiary companies, is eligible for membership, provided he or she is between the ages of 16 and 60 years and of sound mental and bodily health and of good moral character; subject to the by-laws which are now or later may be adopted.

Section 2. Each new employee shall receive from the secretary as soon as possible after employment, a letter reading as follows:

Dodge Mutual Relief Association

Mr..... Check No.....

You are cordially invited to join the Dodge Mutual Relief Association, managed by your fellow-employees for their mutual benefit as you will see from the enclosed copy of by-laws.

¹ See Chapter XXIII.

It is taken for granted that you desire to avail yourself of the privileges of this organization.

If you join within 30 days you save \$1.40, half of the membership fee, so for that reason I have filed with the Directors an application for membership for you.

In this way you get the full benefit of prompt action and if this is not in accordance with your wishes please let me know at once.

Yours for self-protection,

.....

Secretary D. M. R. A.

Section 3. The secretary shall also fill out part of the following application blank, inserting the employee's name in the blank at top and such other information as he may have available.

Application for Membership Dodge Mutual Relief Association

To the Board of Directors of Dodge Mutual Relief Association:

No.....

Date.....19....

I, am an employee of theat My check number is.....and I hereby apply for membership in Dodge Mutual Relief Association for benefits of \$..... at death and \$.....per day temporary disability. I have carefully read the by-laws and agree to comply with and be bound by them.

I reside at No.....St. in the city of.....County ofState of.....

I am.....married and wish \$.....benefits in the event of my wife's death. My wife was born on the.....day of.....in the yearin the City of.....State of

.....I was born on the.....day
 of.....I.....in the city of.....
 County of.....State of.....

I have.....children under 16 years of age
 as follows for whom I would claim benefits in case of the
 death of any of them.

First Name	Middle Name	Last Name	Born on			Amount of Benefits Desired
			Day	Month	Year	
.....
.....
.....
.....
.....
.....

I certify that I am temperate in my habits, and to the
 best of my knowledge and belief, there is no injury or
 disease, constitutional or otherwise, which will tend to
 shorten the life of either myself, my wife, or any of my
 children, except as stated below:

.....

I agree that any untrue or fraudulent statement, made
 to the medical examiner, or any wilful concealment of facts
 in this application or elsewhere, will forfeit my membership
 in the said association and all rights, benefits, and equities
 arising therefrom.

I was last attended by a physician on.....
for.....

I hereby instruct said association, in case of my death,
 to pay the death benefit to.....
 related to me as.....or if
 I should survive.....and neglect
 to notify the secretary of some other beneficiary, payment
 to then be made at the discretion of the board of directors.

I wish to have the benefit of the privileges of the club-rooms at 5 cents per week.

I hereby authorize the Dodge Manufacturing Company or any of its subsidiaries for whom I may be working, to withhold from any wages due me, the dues of the association as provided by the by-laws, and pay same to the secretary of the association, the paymasters of the company thus acting as my attorneys.

Sign here.....

Recommended by..... } Members of
..... } D. M. R. A.

Application approved.....19..... by
the Board of Directors.

.....Secy.

Section 4. The application may be acted upon by the board either before or after being signed by the employee but before he can become a member it must be duly signed by him.

Section 5. In the event that members desire to avail themselves of additional benefits, they may do so subject to the provisions of the by-laws, upon notice to the secretary.

Section 6. Connection with the Association shall terminate when the member ceases to be employed by the Dodge Manufacturing Company or its subsidiaries, or when suspended or expelled by order of the directors, in accordance with the by-laws, or upon resignation filed with the secretary, except that where a member shall be temporarily laid off by the Dodge Manufacturing Company or its subsidiaries, such action shall be held subject to the discretion of the directors not to terminate the membership until twenty-six weeks have elapsed, provided dues are handed regularly to the secretary without solicitation and the member continues to reside in the county.

Section 7. Any employee who involuntarily withdraws from the association, may be reinstated at the discretion of the directors, but will be required to be again examined by the physician, and pay all old accounts against him unless excused by the consent of the board of directors.

Section 8. Any employee voluntarily leaving the association, is again eligible for membership on the same basis as any other employee, but must pay up any old accounts against him unless excused by the directors.

Section 9. Membership shall date from the time of deducting the first dues from the wages of applicants and shall terminate with the expiration of the time covered by the last dues paid.

Section 10. In case that it shall be found that an applicant, his wife (or dependent husband), or a child, has a chronic or other ailment which would decrease the desirability of the applicant as a member, the applicant may, by a majority vote of the board of directors, be admitted to membership by exempting the association from liability for such ailments or from liability due to ailments for which such conditions shall be responsible.

Section 11. Whenever an applicant is admitted to membership in accordance with section 8, the action of the board of directors shall be recorded on the membership record and in the minutes.

Section 12. All applications will be first acted upon by the board of directors and applicants favorably received will take a medical examination at the expense of the association, and under the direction of the board, unless excused by the board.

Section 13. Admission to membership will depend upon the decision of the board following the medical examination, if any.

Section 14. The board of directors have the right to reject or withhold decision on any applications which appear to them liable to work contrary to the interests of the association.

Section 15. Membership shall consist of benefits for temporary disability and death of member together with such other benefits as may be selected by the member.

Section 16. Dues of all members are to be deducted bi-weekly or pro rata semimonthly by the regular paymasters of the Dodge Manufacturing Company or its subsidiaries and turned over to the secretary. This provision is possible through the courtesy of the Dodge Manufacturing Company.

Section 17. Membership shall cease when for any reason dues are not paid as provided in the by-laws, unless by the consent of the board of directors.

Section 18. If it shall be known that a member becomes habitually intoxicated, or is subject to any disability, brought on by his own neglect, misconduct, or vice, or if it shall be known that he has falsified in his application for membership, or has endeavored to defraud or injure the association in any way, he shall be deprived of benefits as the nature of the case may warrant, and shall be suspended or expelled, unless excused by the directors.

Section 19. Members conducting themselves in a way to retard recovery or health, shall forfeit all benefits from disability so affected. This includes drinking intoxicants, frequenting questionable places, or any conduct which has a bad effect on health.

Section 20. Members taking additional benefits will be required to take additional medical examinations unless excused by the board of directors.

Section 21. For convenience in compiling statistics and administering the affairs of the association, the members may be grouped into divisions as the directors may decide.

Section 22. All claims or rights to an interest in any surplus or other property shall cease with termination of membership.

Section 23. Employees not eligible for membership owing to age or other restrictions may be accepted as club members paying regular club dues but not benefit dues.

ARTICLE IV—MEETINGS

Section 1. The annual meeting of the association shall be held on the second Monday of January each year at 8 P.M.

Section 2. Twenty members shall constitute a quorum for the transaction of business.

Section 3. Special meetings are to be called by the president when requested by either twenty members or five directors, or in case he deems it desirable. Only the special business announced for a special meeting may be transacted at that meeting.

Section 4. Notice of any meeting of the association with a statement of the business to be transacted, must be posted by the secretary in conspicuous places at least ten days prior to the meeting. In the case of subsidiary companies, the notice to be sent by the secretary to the proper representative to be posted.

Section 5. The board of directors shall meet at least once a week on regular dates as they may agree, and also when called by the order of the president.

Section 6. Five directors shall constitute a quorum at any directors' meeting.

ARTICLE V—OFFICERS AND HOW ELECTED

Section 1. The management of the association shall be vested in a president, vice-president, secretary, treasurer, actuary, and six directors.

Section 2. At least two weeks prior to the annual meeting, notice shall be given to the various departments and subsidiaries stating the officers to be elected—to fill the vacancies due to expiring terms.

Section 3. The president, vice-president, and treasurer shall be elected by popular vote and hold office for one year or until their successors are elected and qualify.

The secretary shall be selected by the board of directors from among the employees of the main plant of the Dodge Manufacturing Company where he can have convenient access to the complete lists of employees.

Section 4. Each of the six directors shall serve three years, two being elected each year by popular vote.

Section 5. In event of any vacancy occurring in any office for any reason, the board will elect some member in good standing to fill the unexpired term until the next general election.

Section 6. The board of directors may, if in its judgment it is desirable, select any necessary assistant secretaries, from the members in good standing or from their own number.

Section 7. The board of directors shall elect an actuary who shall become a member of the board while filling that office.

Section 8. In the event that the actuary or secretary is chosen from the members of the board, another member shall be selected by the directors to bring the membership of the board up to the required eleven members.

ARTICLE VI—DUTIES OF OFFICERS

Board of Directors

Section 1. The board of directors and officers shall supervise all matters pertaining to, and have general control of the business of the association.

Section 2. This includes power to suspend or expel members, or discharge any officer found unworthy of the confidence reposed in him, after due investigation and hearing.

Section 3. The board may fill vacancies occurring in offices and decide questions not covered by the by-laws, but appeal must be taken to the membership, whenever twenty or more members demand it.

Section 4. The board may levy not to exceed two assessments

per year, of not more than twenty-five cents each, per membership, collectible as dues, when the losses due to sickness, accident, quarantine, or death have depleted the reserve to a critical point; all other assessments must be referred to regular or special meetings of the association.

Section 5. The board may demand a physician's certificate, or arrange for physical examination by a physician, at the expense of the association, whenever it seems desirable, and in case of any doubts about allowance of benefits, may similarly engage a physician for an investigation.

Section 6. The board must pass upon all benefits before they are allowed, and may send flowers, at the expense of the association, not to exceed once in two weeks, in cases of confinement to bed exceeding one week, and in case of death.

President

Section 7. The president shall preside at all meetings of the association and the directors, and perform such other duties, as may be enjoined upon him by the association or directors.

Section 8. He shall call regular or special meetings, sign all minutes, and decide questions of order, subject to appeal to the association.

Section 9. He shall sign all orders drawn on the treasurer, and have the custody of all bonds of the officers.

Section 10. He shall appoint all committees not otherwise provided for, and fill vacancies therein.

Vice-President

Section 11. The vice-president shall assist the president, and shall assume the duties of that officer, in the event of his absence or refusal.

Section 12. He shall serve as chairman of the investigating and visiting committees.

Actuary

Section 13. The duty of the actuary shall be to keep informed on all actuarial matters of interest to the association, and exchange actuarial information with similar officers of other associations for the general good of this association.

Section 14. He shall give advice to the directors on the safe conduct of the financial affairs of the association, and to members, covering such information as he may have or be able to secure, referring to any insurance or financial matters submitted to him.

Secretary

Section 15. The secretary shall attend all meetings of the directors, the association, or any committees of which he is a member, take minutes and attend to the correspondence.

Section 16. At annual meetings, also quarterly and on retiring from office, he shall give a written report of the progress and the present state of the association, and deliver to his successor, all books and papers pertinent to the office.

Section 17. Each week he shall post on the association bulletin board, a list of the members drawing benefits.

Section 18. He shall keep an accurate account with each member, and compile statistical information, as outlined by the board.

Section 19. He shall notify the members through their attorneys, i.e. the paymasters of the company, of all amounts due the association for dues, assessments, etc., receive and record the money thus or otherwise collected, and pay it promptly to the treasurer.

Section 20. He shall make and attest, all orders drawn on the treasurer, and deduct dues from benefits, when necessary, to prevent members from becoming delinquent while disabled.

Section 21. He shall certify as to the correctness of all bills and shall permit the auditing committee or any officer of the association, to examine his books at any time.

Section 22. He shall notify members of their appointment on committees, and give the chairman of each, a complete list of the committee.

Section 23. He shall notify the chairman of the investigating committee of all applications for membership, and the chairman of the visiting committee, of all cases liable to lead to claims for benefits.

Section 24. He shall give bond in the sum of \$2,000, at the expense of the association, and for faithful performance of duties he shall, while serving, receive \$10 per year.

Treasurer

Section 25. The treasurer shall receive all moneys from the secretary, keep an accurate account of all receipts and disbursements, as

outlined by the board, and allow to the auditing committee of the association free access to his books.

Section 26. All monies received are to be promptly deposited in a place designated and approved by the directors as follows:

A checking account not to exceed three hundred dollars in some bank believed to be safe; the balance to be deposited in savings banks, or put out at interest in some conservative way at the discretion of the directors. All deposits must be made in the name of the association.

Section 27. He shall, within twenty-four hours, pay any orders drawn on him, when properly signed by the president and attested by the secretary, and only when so signed and attested, provided sufficient funds are available.

Section 28. He shall not withdraw any money from the savings account without the approval of the board.

Section 29. He shall furnish bond in the sum of \$2,000 at the expense of the association and shall receive a salary of \$1 per year while serving.

Section 30. At annual meetings and when retiring from office, he shall give a written report of the finances of the association, and deliver to his successor all books and papers pertinent to the office.

Physician and Surgeon

Section 31. The directors may regularly engage a physician and surgeon under suitable regulations, when in their judgment the association has grown to such proportions as to make it possible to increase the service to members without increasing the dues.

Section 32. The physician shall be subject to the instructions of the directors, expressed through the president, when this office is filled, and the following laws shall apply:

Section 33. He shall examine all candidates and aim by advice at the time, to improve their state of health, whether they become members or not.

Section 34. He shall be a counselor of the visiting committee, and shall recommend that members be declared either on or off the disability list whenever, in his judgment, the general good of the members and the association require it.

Section 35. His general function shall be to keep the members

well as far as practical, rather than merely to minister to the sick and injured, and shall prescribe and furnish medicines free at the expense of the association to members when they may need it.

Section 36. He shall minister in all cases of accident and sickness of members residing within the city limits of Mishawaka, and supply all medicines and dressings from written notice of the disability from the secretary, unless requested not to do so by the member.

Section 37. Members residing outside of Mishawaka may avail themselves of the services of the physician, by arranging with the secretary, for compensation covering extra expense due to the greater distance.

Section 38. His signature and recommendations shall be appended to all reports for settlements.

Section 39. Any medical attention secured by the members aside from that herein provided, shall be at their own expense.

Section 40. When able to do so, members drawing disability benefits, must go to the office of the physician.

Section 41. The physician or physicians' association shall receive as compensation for his or their services, the sum of fifty cents per member per year payable monthly, and, in addition, a bonus dependent upon the average amount of temporary disability benefits, paid by the association per member per each half-year as shown in the following table:

When Average Temporary Disability Benefit per Member per Half-year is:		Bonus to be Paid to Physician at End of Half-year
Over	Not More Than	Per Member
\$1.00	\$1.25	\$.12
.70	1.00	.25
.50	.70	.35
.20	.50	.50
....	.20	.65

Section 42. The directors may enter into any agreement with the local physicians or their association which will secure service of physicians on any basis in harmony with these by-laws.

Investigating Committee

Section 43. The vice-president shall serve as chairman of this committee, which may be combined with the visiting committee, if the directors deem it wise.

Section 44. This committee shall be divided into sub-committees for different plants of the company.

Section 45. The president shall each month appoint one or more members from each plant to serve three months, or until their successors are appointed and qualify.

Section 46. The chairman shall each month designate the various chairmen of the sub-committees.

Section 47. Each applicant must be investigated by at least two members of the committee who shall affix their signatures to the report which must be made to the directors through the secretary.

Section 48. The committee, if in doubt, shall so report with definite reasons for hesitating and any recommendations they can make.

Section 49. The committee may be reimbursed for any necessary expense incurred in making investigations.

Visiting Committee

Section 50. The vice-president shall serve as chairman of this committee, and shall designate each month, a chairman of a sub-committee, for each of the various plants of the company.

Section 51. The president shall each month appoint one or more members from each plant to serve three months or until their successors are appointed and qualify.

Section 52. Each person drawing disability benefits, shall be visited once each week, by at least one member of this committee, unless otherwise ordered by the directors or prevented by quarantine regulations.

Section 53. Separate weekly reports of each case, on regular form shall be made by the members making the visits and endorsed by the sub-chairman and chairman. These reports shall be handed to the secretary for his files and the scrutiny of the directors. They shall include any violations of either the letter or the spirit of the by-laws or any tendency to increase the risk of the association which may be noticed, and any recommendations of any kind for the general good of the members of the association.

Section 54. This committee may be reimbursed for any necessary expense incurred in making visits or in prosecuting their prescribed duties.

Section 55. If in doubt at any time, the committee shall so report with definite reasons for hesitating and any recommendations they can make.

Auditing Committee

Section 56. Each year, as soon as possible after election, the president shall appoint one member of an auditing committee to serve three years, or until his successor is appointed and qualifies.

Section 57. The senior member of this committee shall act as chairman.

Section 58. The committee shall audit the books of secretary, treasurer, entertainment committee, and any others handling the monies of the association, and approve the secretary's report quarterly and report at the annual meeting of the association.

Section 59. Any irregularities shall be reported to the directors as soon as discovered.

Club Committee

Section 60. The club committee shall consist of three or more members of which the chairman shall be chosen from the directors.

Section 61. They shall provide or arrange for entertainments which may be for the good of the members or the association either financially or socially.

Section 62. They shall have general supervision of the clubrooms, playgrounds, and other social activities of the association with such subcommittees as may be found necessary.

Section 63. The chairman of each subcommittee should be either a director, or a member of the club committee if practicable.

Section 64. The secretary shall be a member and secretary of the club committee.

Section 65. All bills incurred by the club committee or its subcommittees shall be properly approved, and handed to the secretary for payment by the association from the club fund.

Section 66. All money or other revenue received, shall likewise be promptly turned over to the secretary with full information as to its source.

Section 67. The committee will make a report to the annual meeting of the association, and have its records open to the auditing committee and other officers at all times.

Section 68. Any member refusing to serve or failing to faithfully perform the duties of any committee to which he may be appointed, shall be fined 50 cents for the first offense, and \$1 for any subsequent offense, unless excused by the directors.

ARTICLE VII—FUNDS

Section 1. At least two funds shall be maintained, made up from fees, dues, and other revenue known as the Benefit and Club Funds.

Section 2. The benefit fund shall be used only to cover benefits provided for in the by-laws, together with attendant expenses, and shall receive all revenue collected as dues for benefits. The protection of this fund being the first consideration.

Section 3. The club fund shall be used for conduct of the club, as provided for in the by-laws.

Section 4. Separate records of each fund must be kept by both secretary and treasurer, and also they must be kept in separate banks.

Section 5. Dividends shall be declared, or dues be remitted, whenever, in the judgment of the directors, it is safe to do so.

ARTICLE VIII—DUES AND BENEFITS

Section 1. The dues of the association, shall be payable every other week, or semimonthly pro rata on pay days, by being deducted from wages by the paymasters of the company acting as attorneys for the members.

Section 2. In lieu of a membership fee, the dues of each member for the first fourteen weeks after joining shall be 40 cents in addition to the regular dues, except that applications received from employees within one month after employment begins, or within one month after the adoption of these by-laws shall entitle them to special dues for the first fourteen weeks of 20 cents, in addition to the regular dues.

Section 3. The regular dues each two weeks or half month pro rata shall be determined by the benefits which the member elects to take as follows:

	1 Unit	2 Units	3 Units	4 Units
A. Temporary Disability Benefits for not to exceed thirteen weeks for one disability, nor more than twenty-six weeks in any one calendar year. Benefit for each week-day after the first 3 days.....	\$ 0.50	\$ 1.00	\$ 1.50	\$ 2.00
Amount of dues per week for this benefit.....	.05	.10	.175	.25
B. Death of Member Benefit to be paid at death of Member	50.00	100.00	150.00	200.00
Weekly dues for this Benefit.....	.015	.025	.045	.06
C. Death of wife of Member provided she lived in the United States at time of her death....	50.00	100.00	150.00	200.00
Weekly dues for this Benefit.....	.03	.05	.09	.12
D. Death of dependent child over 2 years and under 16 years of age Benefits in excess of \$50 may not be taken for children under 6 years of age. Benefit to be paid for each child at death.....	25.00	50.00	75.00	100.00
Weekly dues for each child .....	.02	.04	.06	.08
E. Club Benefits, including use of club rooms and such privileges as go with them. Weekly dues for club privileges..	.....	.....	.....	.05

Section 4. Members of this association may each take the various benefits at the corresponding rates of dues, provided that no member shall receive from all sources temporary disability benefits in excess of 90 per cent of his average wages for the three months preceding disability.

Section 5. When no wages are due a member from the company, dues must be paid when due, without solicitation from the secretary in order to retain membership, except that in event of a member otherwise eligible for membership being temporarily laid off by the company, the directors, upon request and satisfactory assurance of credit responsibility, may arrange to extend the membership for a period not to exceed thirteen weeks, when the amount in the

treasury will warrant it, and on condition that all such accrued dues are to be deducted from any benefits paid until the accrued dues are paid up.

Section 6. When members have been laid off temporarily, and then resume work after having had the advantages of protection as covered in section 5, whether receiving benefits or not, their dues shall be doubled until all indebtedness to association has been paid.

Section 7. The provisions of sections 5 and 6, are available only to members who continue to reside in the same county, and do not take up any occupation, which, in the opinion of the directors, should enable them to pay their dues, or should warrant the association in canceling the membership.

Section 8. Any person who is a member of the Dodge Manufacturing Company Mutual Relief Association at the time and at least one month prior to the reorganization and adoption of these by-laws, may continue to pay the same dues as formerly, and receive the benefits as provided for special members thus enrolled.

Section 9. Special members provided for in section 8 shall pay 5 cents per week for former class B and 10 cents for former class A members.

Section 10. Special members; or those paying special dues, as elsewhere provided for will receive benefits as follows:

Eighty cents per day for former class A, and 40 cents per day for former class B members, instead of disability benefits as provided for regular members; and death benefit of \$50 for former class A, and \$25 for former class B members.

Section 11. Members who join the association after they are 45 years old, shall receive benefits as follows:

Age at Time
of Joining

46 to 50.....	Benefits will be 10% less than regular schedules
51 to 55.....	“ “ “ 20 “ “ “ “
56 to 60.....	“ “ “ 30 “ “ “ “

Section 12. Nothing in section 11 of this article shall affect the benefits due under any membership taken before member reached the age of 46 years and kept continuously in force thereafter.

Section 13. Members shall be eligible for sick and death benefits after thirty days from the date of their becoming members. In the event of a member later taking additional benefits, such additional

benefits become effective at the expiration of thirty days from the date of collecting the increased dues.

Section 14. Benefits shall be paid as promptly as possible after the required proofs of claims, but the directors shall have power to stop or withhold benefits in the cases of members who are able to work or are otherwise found to be imposing on the association.

Section 15. Members desiring to leave the county while drawing disability benefits, must arrange satisfactorily with the directors for further and sufficient proof of disablement, or surrender all rights to further benefits.

Section 16. The fact that a member drawing disability benefits, frequents saloons or engages in any work either personal or otherwise, shall be evidence of his ability to work, and benefits shall cease, unless sufficient excuse is furnished satisfactory to the physician and directors.

Section 17. No benefits shall be paid for disability resulting from ailments existing prior to joining the association, unless specifically accepted by the directors at time of joining.

Section 18. Disability arising through intoxication, immorality, or wilful misconduct, shall not be subject to disability benefits except by the consent of the directors.

Section 19. Disability benefits shall begin on the fourth day but not earlier than the day on which the secretary receives notice of disability, except by consent of the directors. In as much as the first great care is to keep members well, it is the duty of each member to notify the secretary immediately of any threatened disability of his or herself or any other member.

Section 20. Should a member be discharged by the company while drawing disability benefits, he shall not forfeit his rights to such benefits unless the directors learn that the discharge was for misconduct, when the benefits shall cease not later than the expiration of one month from his discharge, subject to the judgment of the directors.

Section 21. A member having been reinstated after suspension or expulsion, cannot participate in benefits until three months after reinstatement, except by consent of directors.

Section 22. Any conscientious efforts on the part of disabled members to return to work, which may actually result in relapse, causing two or more short periods of disability instead of one longer one, shall not deprive them of the benefits they would have received,

had they remained away from work. They shall not however, be paid benefits for the days on which they work.

Section 23. Convalescent members able to work part time, may receive partial benefits in keeping with the facts at the discretion of the directors.

Section 24. Benefits are meant for the relief of members and their families and cannot be paid to loan sharks or anyone holding unjust or usurious claims against members or their families or to pay gambling debts.

ARTICLE IX—PERIODS OF BENEFITS

Section 1. Temporary disability benefits shall be payable for a period not to exceed thirteen weeks for any one disability, nor more than twenty-six weeks in any one calendar year.

Section 2. In computing these benefits, Sundays shall not count.

Section 3. A member must remain at work at least four weeks after receiving a full term benefit of thirteen weeks, before he is eligible for another temporary disability benefit for sickness.

Section 4. Only one benefit, not to exceed thirteen weeks, shall be paid for one disability or for any one chronic disease or recurring disability.

Section 5. Disability beginning less than four weeks after a previous disability shall be considered as part of the former disability unless there is positive evidence to the contrary.

ARTICLE X—DISSOLUTION

Section 1. This association shall not be dissolved as long as ten members in good standing desire to continue it, but its by-laws or method of doing business may be altered at the will of the association.

Section 2. In case of dissolution, the funds, except as provided in section 3 of this article, shall either be turned over to a succeeding organization, or divided among the members who have been in good standing for at least six months prior to dissolution, pro rata according to the number of months each has been in good standing since joining, or turned over to some charitable enterprise.

Section 3. Any property or money loaned or donated by the Dodge Manufacturing Company or its subsidiaries, or donations received with specific stipulations, shall not be divided among members but shall be disposed of as may be determined by the donors.

ARTICLE XI

Section 1. At all meetings of the association the following order of business shall be observed, except that by unanimous consent of those present it may be changed:

- Reading and approval of minutes
- Report of secretary
- Report of treasurer
- Report of auditing committee
- Report of actuary
- Reports of committees
- Communications, correspondence and bills
- Unfinished business
- New business

Section 2. Each member of the association shall be furnished a copy of these by-laws.

Section 3. Cushing's Manual shall be followed in all rules of order not covered in these by-laws.

Section 4. These by-laws may be amended at any meeting of the association, provided the proposed amendments are posted at least two weeks before action is taken. All by-laws or amendments to be effective immediately after passage, unless otherwise provided.

SPECIAL MEMBERSHIP

Those who for at least 30 days prior to the time of adopting these by-laws are members of the existing Dodge Manufacturing Company Mutual Relief Association, in either class "A" or "B" are not compelled to change to the new forms of membership, but under the title of "Special Members" may continue to pay the same dues as formerly and receive the same benefits as before. No additional members will be taken under this provision.

Dues are collected through the paymasters; thus the association has no expensive system for collecting dues. No salaries are paid the officers and all the money goes for the benefit of members. Hence the liberal benefits when compared with insurance companies paying 25 per cent commission for selling and 25 per cent for expenses, leaving only half their receipts for benefits.

Don't take chances with your health any more than you would in accident prevention. Caution the other fellow if he is careless.

APPENDIX G

BY-LAWS AND FORMS, CHENEY BROTHERS BENEFIT ASSOCIATION AND PENSION REGULATIONS¹

CONSTITUTION

ARTICLE I—NAME

Section 1. This association shall be known as the Benefit Association of Cheney Brothers.

ARTICLE II—OBJECTS

Section 1. The objects of this association are to provide its members with a certain income when sick or when disabled by accident; to provide for families or beneficiaries of members a definite sum in the event of death; and to maintain a fund to be used to aid in the support of members in their old age and in certain contingencies of family life.

ARTICLE III—MEMBERSHIP

Section 1. Membership in the association shall be limited to the employees of Cheney Brothers and of any company owned, operated, or controlled by Cheney Brothers.

Section 2. Eligibility to vote on any matters arising under this constitution or the by-laws of the association shall be limited to members subject to a liability for contributions.

ARTICLE IV—ORGANIZATION

Section 1. This constitution having been accepted by Cheney Brothers and by applicants for membership, in accordance with the

¹ See Chapter XXV.

original proposal of Cheney Brothers to the applicants for membership, is a binding contract upon Cheney Brothers and upon the members of the association, according to the terms herein contained subject to the limitations of article VII.

ARTICLE V—ADMINISTRATION

Section 1. The officers of the association shall be a president, a vice-president, a treasurer, a superintendent, an assistant superintendent, a medical director, and a board consisting of eleven trustees, to be known as the board of trustees.

Section 2. The president and vice-president shall be selected by the board from among its own members on the nomination of the trustees representing the members. The treasurer of Cheney Brothers shall be the treasurer of the association and shall also be *ex officio* a member of the board of trustees. The superintendent, assistant superintendent, and medical director shall be appointed by the board of trustees on the nomination of the trustees representing the company. The superintendent shall be *ex officio* the secretary of the board of trustees and of the association. The members of the association shall appoint annually one trustee in the method prescribed in the by-laws, and the directors of Cheney Brothers shall also appoint annually one member of the board of trustees. The officers shall hold office during the pleasure of the board. All trustees shall serve for five years and until their successors are selected and qualified. A vacancy caused by the death or resignation of a trustee representing the members shall be filled by the trustees representing the members. A vacancy caused by the death or resignation of a trustee representing Cheney Brothers shall be filled by the directors of Cheney Brothers. Six trustees shall constitute a quorum for the transaction of business.

Section 3. The board of trustees shall annually at their regular meeting in April, organize by the election of a president, a vice-president, a superintendent, an assistant superintendent, a medical director, an operating committee, a finance committee, and an auditing committee. The operating committee shall consist of three members, one to be chosen by the trustees representing the company; one to be chosen by the trustees representing the members; and the third shall be the superintendent. The finance committee shall consist of three members, one of whom shall be the treasurer of the association; one shall be chosen by the trustees representing the company from

the trustees representing the members; and the third shall be chosen by the board on the nomination of the trustees representing the members. The auditing committee shall consist of two persons, not trustees, one of whom shall be chosen by the trustees representing the members and the other shall be chosen by the directors of Cheney Brothers.

ARTICLE VI—DUTIES OF OFFICERS AND COMMITTEES

Section 1. The president shall preside at all meetings of the association and of the board of trustees. He shall enforce all the rules of the association and perform such other duties as may be required by the board of trustees.

Section 2. The vice-president shall perform the duties of the president in the absence of the latter.

Section 3. The treasurer shall receive and hold the current funds of the association, depositing the same at his discretion with Cheney Brothers to the credit of the association; or in bank or banks approved by the finance committee. He shall deposit the surplus funds and securities of the association in a bank or safe deposit company approved by the finance committee, under such restrictions as to access to the same as the board of trustees may from time to time establish. He shall disburse money for the payments of claims or the investigation thereof only upon the order of the operating committee, and for other accounts or investments only upon the order of the finance committee, except as provided in section 7 of this article. In case of the absence of the treasurer, or when he is unable to act, either the president or vice-president of Cheney Brothers may perform all of his duties and act in his place and stead.

Section 4. The superintendent shall keep and preserve all records of the association and of the board of trustees; keep the accounts of the association, under the direction of the treasurer, and shall perform such other duties as may be required of him by the operating and finance committees. He shall examine and subject to the approval of the operating committee accept or reject all applications for membership. He shall make a quarterly report to the board of trustees of the activities of the association and such other reports as the trustees may from time to time require. He shall also, keep a detailed record of all payments for compensation under paragraph

(e) of section 1 of article VII, and of all receipts from Cheney Brothers on account thereof.

Section 5. The assistant superintendent shall perform the duties of the superintendent in the absence of the latter, and such other duties as may be required of him by the operating committee, or the board of trustees.

Section 6. The medical director shall make a physical examination of applicants for membership, if required by the superintendent. He shall supervise the care and treatment of all persons injured in the service of the company, and shall make reports to the operating committee from time to time of the condition of such injured persons, and perform such other duties as may be required of him by the operating committee, or the board of trustees.

Section 7. The operating committee shall approve all claims before they are passed to the treasurer for payment and the treasurer shall pay no claims without the approval of the committee, except when directed by a vote of two-thirds of the board of trustees. This committee shall appoint and fix the remuneration of all visiting committees, employ inspectors and take whatever steps may be necessary to fully investigate the validity of claims against the association. It shall supervise the collection of all contributions not taken out of the wages of members and the receipting therefor; shall approve disbursements of every kind before they are paid by the treasurer; and may also investigate and recommend precautions to be taken in every department of the company to prevent accidents and illness. In the case of payments which are to be made by Cheney Brothers the committee shall examine and approve the accounts and claims and transmit them to the auditing department of Cheney Brothers for audit and payment. The committee shall perform such other duties as may be assigned to it from time to time by the board of trustees. In case of the absence of a member of the operating committee, or when he is unable to act, any trustee representing the same interest as the absent or incapacitated member may act in his place and stead.

Section 8. The finance committee of the association shall invest the funds of the association in accordance with the laws of the state of Connecticut governing the investments of life insurance companies, and shall make a report of such funds and investments to the trustees at each regular meeting of the board. At the end of every third fiscal year the committee shall estimate the amount of contribu-

tions to be required of the members for the following period of three fiscal years and shall report the same to the board of trustees for approval. The committee shall also recommend to the board of trustees from time to time such changes in the scale of benefits to be paid by the association as to the committee shall seem proper.

Section 9. The auditing committee shall before each annual meeting of the board of trustees audit the books, accounts, and vouchers of the treasurer and superintendent and shall certify audit to the board of trustees. This committee may, with the approval of the board of trustees, employ expert assistants.

Section 10. The board of trustees shall, at the end of each fiscal year, make a report to the members of the business and financial transactions of the association; and shall have the general control and management of the affairs of the association.

ARTICLE VII—CONTRACT WITH CHENEY BROTHERS

Section 1. Cheney Brothers and the association having joined in the furtherance of the objects set forth in article II of this constitution for the good which will accrue to both; Cheney Brothers (having been duly authorized thereunto by the vote of the stockholders and directors to enter into the agreement in this article contained), upon the formation of this association and the adoption of this constitution and the by-laws of the association herein referred to, hereby agree to and with the association as follows:

(a) To take charge of such funds and securities of the association as may be entrusted to it by the treasurer and to be responsible for their safe-keeping.

(b) To guarantee the payment of all sick and accident benefits and death claims approved in accordance with this constitution and the by-laws of the association, provided that any payments made by Cheney Brothers to make up for any deficiency in the funds of the association during a period of three fiscal years shall be repaid to the company out of any surplus funds which shall be accumulated during the same three-year period.

(c) To pay in each fiscal year in monthly instalments into the Employees' Benefit Fund an amount equal to 25 per cent of the sum of all of the contributions made by members during such fiscal year.

(d) To supply the necessary facilities and room for conducting

the business of the association and to pay the operating expenses, including the salaries of officers and assistants.

(e) To pay to all employees such compensation for personal injury arising out of and received in the course of employment, or on account of death resulting from an injury so sustained, and provide such medical, surgical, and hospital service and burial expenses, as may be required by law.

(f) To pay accident benefits as provided in the by-laws to full and limited members during such portion of any terms of total and continuous incapacity to perform work of any character for which compensation is not payable by law, provided that such incapacity results from bodily injuries affected through external, violent, and accidental means independently of all other causes and sustained while performing duty in the service of the company and not due to the member's own wilful or gross carelessness or intoxication or to disobedience of rules reasonably designed for the protection of employees.

(g) Provided, however, that Cheney Brothers shall have the right and power to appoint and remove all employees of the association whose appointment is not specially provided for in the constitution of the association. And provided further that the enactment of legislation which will materially alter the laws which now regulate the relations between Cheney Brothers and their employees, or which shall establish a scheme of compulsory compensation to employees, shall give to Cheney Brothers the right forthwith to terminate this contract. And provided further that all moneys paid to a member of the association for benefits for personal injuries sustained by an employee, arising out of or in the course of employment, or to beneficiaries for death resulting from injuries so sustained, in accordance with the laws governing the compensation of such injuries, of any state, or amendments thereto, shall be taken to be, to the extent thereof, in lieu of the benefits provided by this constitution, and shall be deducted from the benefits payable to such member or beneficiaries under the provisions of this constitution and the by-laws of the association. The acceptance by Cheney Brothers of the obligations imposed by the aforesaid acts and of any amendments thereto shall not affect the right of Cheney Brothers to terminate this contract as provided in this paragraph, but such right may be exercised at any time hereafter or upon any amendment to the aforesaid acts.

ARTICLE VIII—ELIGIBILITY TO BENEFITS AND LIABILITY FOR CONTRIBUTIONS

Section 1. Every person under contract of service or hire, written or spoken with Cheney Brothers, or with any company owned, operated or controlled by Cheney Brothers, becomes by reason of entering such service, and during such extent of his term of service as he is eligible to legal compensation for any class of personal disabilities, a member of the benefit association and is entitled to whatever benefits the law provides, subject to such restrictions as may govern by law the relations of employer and employee.

Section 2. Any member of the benefit association may decline to become eligible, in whole or in part, for any benefits which require a contribution by him, unless such contribution is established by law.

Section 3. The benefit association may decline because of physical defects to accept a liability to any member for any benefits in whole or in part except such as are established by law and may regulate the voluntary contributions in proportion to the liability accepted. Nothing herein contained shall give the association, except as provided in article VII, during the continuance of contributions of any member, the right to withdraw from a liability to him as a full or limited member which it has once accepted without his consent, unless such acceptance was induced by fraudulent or untrue statements or by concealing any facts as to the existence of physical defects.

Section 4. Eligibility to any benefits over and above those established by law shall be based upon this constitution and the by-laws of the association and the issuing of a certificate of full or limited membership. Such certificate shall be in such form as the operating committee, from time to time, shall prescribe with the approval of the board of trustees.

ARTICLE IX—DEFINITIONS

Section 1. The terms "Cheney Brothers" or "The Company" as used in this constitution or the by-laws of the association shall include any company owned, operated, or controlled by Cheney Brothers. Masculine terms include males, females, and legal persons. "Employee" shall be taken to mean any person who has entered into or works under any contract of service or hire, for pay, written or spoken, with the company.

ARTICLE X—AMENDMENTS

Section I. The board of trustees may propose amendments to the constitution. Such amendments shall not become effective until they shall have been accepted by the board of directors of Cheney Brothers and approved by a majority of the members of the association, who are eligible to vote under article III.

 NOTICE OF MEMBERSHIP

South Manchester, Conn.,

....., 19....

M.....

You are hereby notified that from the date of your entering the employment of Cheney Brothers you have been enrolled as a statutory member of the Benefit Association of Cheney Brothers and are thereby eligible to any compensation provided by law.

You are hereby further notified that you are eligible for fulllimited.....membership in class..... of such association, entitled to the benefits thereof and subject to the conditions of the constitution and by-laws of the association, a copy of which is enclosed herewith.

Unless written notice of your wish not to accept such membership is received before.....you will be enrolled as a full.....limited..... member of class.....dating from....., a full certificate of full.....limited.....membership will be issued to you and a deduction of.....(\$)
Dollars per week will be made from your wages thereafter.

Signed:

.....,

Superintendent Benefit Asso.

Note: Forms for the rejection of membership may be obtained from the superintendent of the benefit association at the main office of Cheney Brothers.

TERMS OF MEMBERSHIP

Membership is accepted by the person named in this certificate upon the following terms:

(a) That he shall be bound by the constitution and by-laws of the association and by all amendments thereto, and all rules and regulations in force during the term of their membership.

(b) That his habits of life are correct and temperate; that he is in sound condition, mentally and physically, except as set forth in the statement made by him to the superintendent or his agent. (Article VIII, section 13 of the by-laws.)

(c) That unless a member shall otherwise designate in writing, with the approval of the superintendent of the association, the death benefits in excess of those required by law under article VII, and death benefits from sickness under articles V and VI of members whose membership commenced after September 1, 1915, shall be paid to the dependents of the deceased, if any, in accordance to the relative degrees of their dependency existing at the time or times of payment, as determined by the trustees, whose decision shall be final as to all questions of dependency.

That unless a member shall otherwise designate in writing with the approval of the superintendent of the association death benefits described in the above paragraph in case there are no dependents, and death benefits arising from sickness under articles V and VI on account of the death of members whose membership commenced prior to September 1, 1915, shall be payable as follows and in the following order: (1) to the widow (husband), if surviving; or (2) if there be no widow (husband) to the surviving children and the children of any deceased child or children, the children of a deceased child to take the parent's share; or (3) if there shall be no child of said member, or child or children of a deceased child or children, to the surviving parents or parent; or (4) if there be no surviving parent, then to the next of kin, payment in behalf of such kin to be made to the executor or administrator; or (5) if there be no next of kin, or if claim shall not be made by the person or persons entitled thereto within two years from the date of the member's death, the amount of the death benefit shall be paid into and become a part of the reserve fund of the association. (Article VIII, section 11 of the by-laws.)

(d) That if any statement made by the member to the superin-

tendent or his agent shall be untrue or fraudulent or if he shall have concealed any facts or shall have resigned from or left voluntarily or otherwise the service of Cheney Brothers or any company owned, operated, or controlled by it, all his rights and privileges to full or limited membership in the association and claims to benefits arising therefrom shall terminate, except his right to the amounts contributed to the annuities specified in article IX of the by-laws and except that the termination of employment shall not, in the absence of any other causes of termination of membership, deprive him of benefits to which he may be entitled by reason of disability beginning and reported before and continuing after the termination of employment. (Article I, section 6. article VIII, section 13 of the by-laws.)

(e) That Cheney Brothers by its proper agent may during the continuance of his membership apply as a voluntary contribution from any wages earned by him in their employment such contributions as the trustees may establish for the purpose of securing the benefits provided in the by-laws for a member of this association.

(Article III, section 2 of the by-laws.)

FORM OF CERTIFICATE OF MEMBERSHIP

No..... Date.....

THIS CERTIFIES that.....
 of.....in the state of Connecticut, is a (full)
 (limited) member of the Benefit Association of Cheney Brothers,
 entitled to the benefits and privileges of membership and subject
 to the obligations thereof in accordance with the constitution and
 by-laws of the association and the conditions on the reverse side of
 this certificate.

Membership shall be in effect from the.....day of.....
 19.....

Signed by

.....
 Superintendent of the Benefit Association of Cheney
 Brothers.

BY-LAWS

ARTICLE I—MEMBERSHIP—ELIGIBILITY

Section 1. The membership of the association shall be composed of full, limited, and statutory members.

(a) Every person not over forty-five years of age, in the employ of the company, shall be eligible for full membership, subject to the approval of the operating committee. Full members are eligible to statutory, accident, sick, annuity, and death benefits, as prescribed by these by-laws.

(b) Any person in the employ of the company, over forty-five years of age, or any employee not eligible to full membership, may be eligible to limited membership subject to the approval of the operating committee. Limited members are eligible to statutory, accident, and sick benefits only, as provided by these by-laws.

(c) Every person under any contract of service or hire, written or spoken with the company shall be a statutory member during such part of his term of service as he is not enrolled as a full or limited member, and is eligible to legal compensation for any class of disabilities. Statutory members shall be entitled to only such benefits or compensation as is established by law, and shall be subject to no contributions except such as may be prescribed by law.

Section 2. The operating committee may reject any employee of the company for full or limited membership because of physical defects; but any person rejected for full membership may, with the approval of the operating committee, be accepted as a limited member, provided he will agree to waive his right to benefits because of disability due to the specific physical defects which would otherwise operate to exclude him.

Section 3. Any employee may decline to accept, or having accepted, to continue in any class of membership.

Section 4. Within two weeks of the date on which a person enters the employ of the company, the operating committee will notify him, if eligible, of the grade and class of membership other than statutory which will afford the greatest amount of benefits to which the person is eligible and acceptable. If written notice of declination to accept such membership is not received within two weeks from the date of the notice, the person will thereupon be enrolled as a full or limited member and will become subject to the

contributions fixed for the grade and class of membership to which he is assigned, unless he shall request an earlier enrolment.

Section 5. A physical examination by the medical director may be required of any person before he is accepted for full or limited membership, if deemed necessary by the superintendent.

Section 6. When a member shall leave the service of Cheney Brothers, voluntarily or otherwise, his membership in the association shall end on the hour of the termination of his employment, and he shall not thereafter be entitled to any benefits except because of disability beginning and reported theretofore, and continuing thereafter without interruption, and for his contribution towards purchase of an annuity as specified in article IX of these by-laws.

ARTICLE II—CLASSIFICATION OF MEMBERSHIP

Section 1. Members shall be divided into five classes, according to average weekly wages, reduced to a fifty-hour week basis. The classes shall be as follows:

Class A. Members receiving not more than \$7.50 weekly.

Class B. Members receiving more than \$7.50 and not more than \$12.50 weekly.

Class C. Members receiving more than \$12.50 and not more than \$17.50 weekly.

Class D. Members receiving more than \$17.50 and not more than \$22.50 weekly.

Class E. Members receiving more than \$22.50 weekly.

Section 2. Applicants for membership, already in the service of the company, shall be assigned by the superintendent to the class which includes their average weekly wages for the last completed pay period of thirteen weeks. Those who shall have been employed less than thirteen weeks shall be assigned to the class which includes the average weekly wages for the weeks actually employed. All averages of weekly wages shall be ascertained by dividing the amount received by the hours worked and multiplying the quotient by fifty.

Section 3. A new employee applying for membership, if engaged at a specified wage, shall be assigned to the class which includes his wage; otherwise he shall be assigned to class A; but any such new employee may be assigned to any higher class which he may select with the approval of the superintendent.

Section 4. A reclassification of members shall be made annually by the superintendent. Members, whose average wages shall have increased or decreased beyond the limits of the class to which they were assigned, shall be re-assigned to a higher or lower class to correspond to their wage earnings; provided, that the superintendent may at his discretion upon request of a member assign any member to the next higher or lower class.

ARTICLE III—CONTRIBUTIONS BY MEMBERS

Section 1. The word "contribution" as used in these by-laws shall mean such designated portion of the wages payable by the company to the association on order of the employee as the board of trustees shall have fixed for the purpose of securing to him the benefits of the association, or such cash payments as it may be necessary for a member to make for this purpose.

Section 2. Contributions shall be payable monthly in advance and shall be deducted from the wages of the members on the first regular pay-day of each month. If sufficient wages to cover the monthly contribution shall not have been earned in any month by a member, he shall pay in cash the amount of the contribution, or that proportion not covered by his earned wages. The weekly pay cards issued by Cheney Brothers may contain an authorization to Cheney Brothers, by its proper agents, to apply from any wages earned in their employ such amounts as the board of trustees may fix under sections 1 and 4 of this article. No member over one month in arrears shall receive any benefit for any accident which shall be sustained, or for any sickness which shall have commenced, or death resulting therefrom, during the time in which he was in arrears; nor thereafter until he shall have resumed full payment of his contributions.

Section 3. If by reason of error the contribution of a member for any amount shall not be deducted from his wages, such error shall not debar him or his beneficiary from benefits to which they would otherwise be entitled, and the error shall be corrected and deduction made on the next pay-day from the wages earned by such member.

Section 4. Contributions of members shall be such amounts as the board of trustees may from time to time determine, not exceeding, however, 3 per cent of the mean wage of the class to which the

member belongs. Until changed by the board of trustees, such contributions shall be $1\frac{1}{2}$ per cent of the class to which the member belongs for full members, and 1 per cent of such mean wage for limited members.

Section 5. Any member who shall be temporarily relieved from service for a period not exceeding ninety days may retain his membership by paying monthly in advance the same contribution as was made by him in the two months before he is so relieved from service.

Section 6. Any member who shall leave the service during a month for which he shall have paid contributions shall receive back an amount equal to that proportion of the month's time for which he will be off the company's pay-roll; but he shall receive no further amount, except his interest in an annuity, as hereinafter provided.

Section 7. Contributions shall be made during disability from sickness or accident and shall be deducted from any amounts payable for benefits or death claims.

ARTICLE IV—FUNDS AND ACCOUNTS

Section 1. The contributions of members shall be credited to each member's personal account and deposited in a fund to be known as the "Benefit Fund." The company's annual contribution of 25 per cent of the amount contributed by the members shall also be deposited in this fund. The benefit fund shall be used only for the payment to members of sick benefits and death claims resulting from disease, and for benefits for an injury other than the results of an accident in the company's service, as specified in article VII, section 2, of these by-laws. The amount remaining in the benefit fund at the end of each fiscal year, less the amount which will be required to liquidate claims in process of adjustment, shall be transferred to a fund to be known as the "Reserve Fund."

Section 2. The reserve fund shall be used only for the payment of annuities to members and the payment of withdrawals as hereinafter provided, but the company may be reimbursed out of this fund at the end of any three-year period for moneys which it shall have paid during the same three-year period (in accordance with provision (b) of the contract between the company and the association set forth in article VII of the constitution), but not to a greater extent

than the surpluses accruing in the benefit fund during the whole of that three-year period.

ARTICLE V—SICK BENEFITS AND DEATH CLAIMS RESULTING FROM SICKNESS

Section 1. Benefits for sickness caused by diseases to which both sexes are not liable shall not be paid for the first six working days of disability, nor for Sundays.

Benefits for sickness caused by diseases other than those stated above shall not be paid for the first three working days of disability, nor for Sundays.

In all cases of sickness the operating committee may refuse to allow benefits until the expiration of a full working day after the receipt of a notice of disability. The operating committee may also refuse to pay sick benefits for disabilities resulting from any illness which has not required the attendance or examination of a registered physician.

Section 2. Payments of one-half of the mean weekly wage of the class to which the member is contributing for the first fifty-two weeks of allowed disability and one-fourth of such mean weekly wage for the second fifty-two weeks of such disability (in accordance with the schedule attached to this article), shall be made monthly to a member while disabled by sickness or by an injury other than the result of an accident in the company's service, as specified in article VII of these by-laws.

Nothing herein contained shall prevent the payment by the company upon the application of the member of a retiring pension in lieu of all benefit association benefits, except such as are provided for in article VI, section 1 of the by-laws.

Section 3. A relapse, if due either in whole or in part to the disease or injury which caused the original disability, shall constitute a part of such disability in the computation of the term for which benefits shall be paid, as specified in section 2 of this article.

Section 4. Benefits for disability due to pregnancy shall not exceed \$50. Such benefits shall be in lieu of all other benefits for disability preceding directly or indirectly from this cause, and shall only be payable upon compliance with the following conditions:

(a) After the birth of a legitimate child or children to a lawfully

married woman, after completion of not less than six months of pregnancy.

(b) The woman must have been a member of the Benefit Association of Cheney Brothers for at least twelve months immediately preceding confinement.

(c) The total absence from service shall not be less than fourteen weeks, of which at least eight weeks shall have been previous to confinement, except in premature cases where the doctor shall certify to such fact.

(d) The member shall have been attended by a registered physician during confinement.

Section 5. In case of death due to sickness or to an injury other than by an accident in the company's service (as specified in article VII of these by-laws), an amount equal to one-half of one year's mean wages of the class to which the member was contributing shall be paid in monthly instalments during one year after such death to the beneficiary or beneficiaries of the deceased member. The operating committee may anticipate the payment of any one or more of such monthly instalments.

Section 6. SCHEDULE OF SICK AND DEATH BENEFITS

	Class A	Class B	Class C	Class D	Class E
Those receiving { more than .. weekly { not more than ..	.. \$7.50	\$ 7.50 12.50	\$12.50 17.50	\$17.50 22.50	\$22.50
Mean Wage of Class	5.00	10.00	15.00	20.00	24.00
Benefit per { 1st 52 weeks .. week { 2d 52 weeks....	2.50 1.25	5.00 2.50	7.50 3.75	10.00 5.00	12.00 6.00
Death Claims	130.00	260.00	390.00	520.00	624.00
Weekly Contribution { 1½% of mean { wage—full members ... 1% — limited members ...	0.07½ .05	0.15 .10	0.22½ .15	0.30 .20	0.37½ .25

Limited membership does not purchase death claim or annuity.

ARTICLE VI—DEATH BENEFITS CONTINUED AFTER LEAVING THE ACTIVE SERVICE AND ADDITIONAL DEATH BENEFITS

Section 1. Members retiring from active service on a pension or annuity, but performing some service for the company suited to their capacity, may retain a death benefit not exceeding that of class A, \$130. In order to retain such death benefit they shall contribute 25 cents per month for each \$100 of death benefits. Their contributions shall be deducted from their pension or annuity and credited to the association.

Section 2. Upon passing a satisfactory medical examination full members not over fifty years of age may acquire additional death benefits of not to exceed twice the amount of the death benefit of the class to which they are contributing.

Section 3. The rate per month of contributions for death benefits, additional to the death benefit of the member's class, shall be determined by the age of the member at the time of taking the additional death benefit, as follows: For each \$100 of additional death benefit for a member not over forty years of age, 12½ cents monthly; over forty and not over fifty years of age, 17 cents monthly. If a member, having additional death benefit, shall increase the amount when his age requires a higher rate than he before contributed, the higher rate shall apply only to the increase.

ARTICLE VII—ACCIDENT BENEFITS AND DEATH CLAIMS RESULTING FROM ACCIDENTS OTHER THAN THOSE REQUIRED BY LAW

Section 1. Accident benefits other than those required by law are payable to full and limited members only, and when allowed shall date from the hour when the injured person was examined by the medical or assistant medical examiner and his injury approved as constituting a disability under sections 2 and 3 of this article.

Section 2. In order to entitle a member or his beneficiaries to accident benefits other than those required by law the injury must be reported to the foreman of the department in which the member was engaged within twenty-four hours after the injury was sustained, not including Sundays or legal holidays. It must be shown that incapacity or death resulted from bodily injuries affected through external, violent, and accidental means independently of all other causes and that such injuries or death were sustained during the

performance of duty in the service of the company or while voluntarily protecting the company's property or interests. Accident benefits under this article will be paid for the results of frostbite or sunstroke but not for any injury, disability, or death due to the member's own wilful or gross carelessness or intoxication or to the disobedience of rules reasonably designed for the protection of employees, or from or while violating law or for injuries or death intentionally self-inflicted. Benefits for accidental injuries excluded under this section and not required by law may be paid as sick benefits or death by disease under article V and article VIII, section 7 of the by-laws; but the operating committee may make exceptions in any case where the rules herein set forth would be obviously unjust.

Section 3. Where an accidental bodily injury for which benefits shall be payable under this article shall wholly disable and prevent a member from performing work of any character, a monthly payment of an amount equal to one-half of his average weekly wages, as defined in article XI, shall be made for such part of the period of total disability as compensation shall not be payable by law. If the disability aforesaid shall be continuous and permanent and finally result in death within six years, the monthly benefits provided for in this section shall be paid to the member while he shall survive and for the remainder of the six years to his beneficiary or beneficiaries.

Section 4. In all cases of accidental injuries covered by this article surgical and medical attendance, and hospital treatment when necessary, in addition to those required by law, will be provided under the direction of the medical director during the entire period of disability.

Section 5. To all claims for accident benefits and death claims resulting from accidental injuries under this article an additional allowance shall be made the member or the beneficiary or beneficiaries, as the case may be, of 1 per cent of the average weekly wages; (as ascertained in article XI), for each year of the member's service over five years; and in the case of married members supporting their families, an additional allowance of 5 per cent shall be made for each child under sixteen years of age who is dependent upon the member for support; provided, however, that in no case shall the benefits paid be increased by more than 25 per cent of the average wage of the injured member.

Section 6. In the case of a death resulting solely from an accidental injury covered by this article an additional benefit will be paid to cover funeral expenses but not to exceed \$100.

ARTICLE VIII—REGULATIONS GOVERNING SICK AND ACCIDENT BENEFITS AND DEATH CLAIMS

Section 1. If the death of a member shall result from suicide, whether sane or insane, before the end of the first year of membership, the beneficiary or beneficiaries shall be entitled to receive, as a benefit for such death, only 20 per cent of the member's actual contributions to the funds of the association.

Section 2. Every disability or death shall be classed as due to either sickness, which includes injuries other than those received in the course of employment as determined by articles V and VI, or as due to accidents as determined by article VII and the compensation laws of the State of Connecticut. No member shall receive at the same time benefits for both sickness and accidents, as defined by said articles and laws, except that a member who is receiving legal compensation for permanent partial disability or dismemberment, may, after the resumption of work, become eligible for sick benefits while still receiving compensation.

Section 3. Benefits will not be paid for sickness which is caused or increased in whole or in part by sexual immorality, intoxication, or the use of intoxicating liquors or narcotics, or from or while violating the law; nor shall any benefits be paid in the case of death at the hands of justice or on account of death due to any of the causes enumerated in this section, except by vote of the trustees.

Section 4. A member will not be entitled to any benefits during the time for which he is paid wages by the company, except benefits for partial incapacity after the resumption of work, as provided by law.

Section 5. A member who shall decline to submit to examination by the medical director or nurse of the association or by the visiting committee, or who shall intentionally deceive such medical director, nurse, or visiting committee, or absent himself from his usual place of residence without the permission of the superintendent, shall not be entitled to either sick or accident benefits, or death claims.

Section 6. The operating committee of the association shall decide all claims for benefits against the association or against Cheney

Brothers, and their decision, subject to approval or revision upon an appeal to the board of trustees of the association, shall be final and conclusive upon all interests concerned.

Section 7. A disability or death resulting from a slight wound, infection, or injury not immediately disabling, and not reported within twenty-four hours after the injury was **sustained**, not including Sundays or legal holidays, may, in the discretion of the operating committee, be classed as due to disease and considered as a claim for sick benefits or death resulting from disease under article V of the by-laws, unless otherwise required by law.

Section 8. No assignments of benefits or death claims and no changes of beneficiary can be made without the written consent of the superintendent of the association. If any member or beneficiary shall cause an attachment or other legal process to be served upon the officers of the association, all benefits then due or which would thereafter otherwise become due and payable to such member or to his beneficiaries except the compensation required by law shall be paid into and become a part of the reserve fund of the association.

Section 9. In case of injury in the service of the company the medical director may employ such medical assistance in consultation as he deems necessary, or the injured person with the consent of either the medical director or the superintendent, may call in consultation additional medical assistance.

Section 10. In case any employee or his beneficiaries or dependents shall be entitled by the laws of Connecticut to any compensation for injuries received during the course of employment, and arising out of employment, greater than that herein provided, the amount paid to the employee, beneficiary, or dependent shall be that prescribed by such law.

Section 11. Unless a member shall otherwise designate in writing with the approval of the superintendent of the association, death benefits in excess of those required by law under article VII, and death benefits from sickness under articles V and VI of members whose membership commenced after September 1, 1915, shall be paid to the dependents of the deceased, if any, in accordance to the relative degrees of their dependency existing at the time or times of payment, as determined by the trustees, whose decision shall be final as to all questions of dependency.

Unless a member shall otherwise designate in writing with the approval of the superintendent of the association death benefits de-

scribed in the above paragraph in case there are no dependents, and death benefits arising from sickness under articles V and VI on account of the death of members whose membership commenced prior to September 1, 1915, shall be payable as follows and in the following order: (1) to the widow (husband) if surviving; or (2) if there be no widow (husband) to the surviving children and the children of any deceased child or children, the children of a deceased child to take the parent's share; or (3) if there shall be no child of said member, or child or children of a deceased child or children, to the surviving parents or parent; or (4) if there be no surviving parent, then to the next of kin, payment in behalf of such kin to be made to the executor or administrator; or (5) if there be no next of kin, or if claim shall not be made by the person or persons entitled thereto within two years from the date of the member's death, the amount of the death benefit shall be paid into and become a part of the reserve fund of the association.

Section 12. The decision of the board of trustees shall be final and conclusive in any controversy with the association of whatsoever nature, or for or in relation to any claim for sick or accident benefits and annuities or for death benefits.

Section 13. Any employee when accepting full or limited membership may be required by the superintendent to make a written or oral statement as to whether his habits of life are correct and temperate and as to whether he is in sound condition mentally and physically, and if any statement so made shall prove to be untrue or fraudulent or if such statement shall have concealed any pertinent facts, the rights and privileges of full or limited membership herein shall be thereby terminated and forfeited.

ARTICLE IX—ANNUITIES

Section 1. The term "annuity" as used herein shall mean a payment to be made out of the reserve fund to a member, who shall be retired from active service by reason of age or physical condition under regulations adopted by the association. Such payment shall commence on the first day of the month next following retirement, and shall be continued thereafter until the death of the member.

Section 2. The amount of the annuity to be paid to a member shall be fixed at the time of his retirement and based upon actuarial computations adopted by the board of trustees.

Section 3. No member shall be entitled to receive an annuity for any period during which he shall receive wages from the company, and the acceptance of an annuity shall release and discharge the association from any obligation to pay any disability or death benefits thereafter except as provided in article VI, section 1, of these by-laws, or as are required by law.

Section 4. Annuities shall be paid to members as follows:

(a) To men over seventy years of age and women over sixty years of age, who shall have been contributors to the fund for ten years and who shall be retired from active service with the company.

(b) To men over sixty-five years of age and women over fifty-five years of age, who shall have been contributors to the fund for fifteen years and who shall be retired from active service with the company because of incapacity of further work.

(c) To men or women of any age who shall have been contributors to the fund for twenty years and who shall have become permanently incapacitated for further work in the service of the company.

Section 5. A member who shall have contributed to the fund for one completed fiscal year or more and who wishes to withdraw may recover, without interest, one year after the termination of his membership that proportion of his contributions which the transfers to the reserve fund of the contributions of members during the years of his membership (less any deficiency payments reimbursed to Cheney Brothers) bear to the total contributions of all members to the benefit fund for the same time. But female members, at the time of marriage, whether leaving the employment of the company or not, may at their option receive, upon presentation of marriage certificate, the amount ascertained as aforesaid with interest at 4 per cent compounded annually.

Section 6. If a member shall die before receiving an annuity to which he has become entitled, there shall be paid to his beneficiary the amount payable in the case of a withdrawal from membership ascertained as provided in sections 4 and 5, but with interest at four per cent compounded annually.

Section 7. An annuity shall revert to and become a part of the reserve fund of the association if the member otherwise entitled thereto shall assign or attempt to assign or transfer such annuity without the written approval of the superintendent.

ARTICLE X—STATUTORY BENEFITS

Section 1. Statutory members shall receive the compensation established by and subject to the conditions of the compensation laws of the state of Connecticut. Full and limited members may receive in addition to said compensation, accident and death benefits as determined by articles VII and VIII of the by-laws.

ARTICLE XI—AVERAGE WAGES

Section 1. The average wages in all cases of compensation payable by law and of accident benefits under article VII, shall be ascertained by dividing the total wages received by the injured workman during the 180 calendar days immediately preceding that during which he was injured by the number of days he was regularly employed, provided in making such computation, absence for as many consecutive work hours as the workman was regularly employed in a working day shall be considered as absence for a work day, although not in the same calendar day and shall be deducted in determining the divisor above.

ARTICLE XII—FISCAL YEAR AND MEETINGS OF BOARD OF TRUSTEES

Section 1. The fiscal year of the association shall be the twelve months beginning April 1, and ending March 31.

Section 2. The board of trustees shall hold stated quarterly meetings at the office of Cheney Brothers in South Manchester, Connecticut, at 2 o'clock in the afternoon of the second Thursday (Friday if Thursday is a legal holiday) of April, July, October, and January.

Section 3. The annual election of officers of the board of trustees shall be held at the April meeting, which shall be known as the annual meeting of the board of trustees.

Section 4. Special meetings may be held at any time on the call of the president and treasurer or of any three trustees, provided three days' notice in writing is given by the secretary of the association of such meeting to every member of the board of trustees; or on shorter notice if all of the members of the board of trustees agree thereto.

ARTICLE XIII—ELECTION OF TRUSTEES

Section 1. Not less than two weeks before the annual meeting of the board of trustees, the superintendent shall furnish every member of the association eligible to vote, with a blank form for the nomination of a trustee, as follows:

BENEFIT ASSOCIATION OF CHENEY BROTHERS

Ballot for Nomination of a Trustee

I (name of member), a member of Class.....in theDepartment, do hereby nominate (name of nominee), as a Trustee of the Benefit Association of Cheney Brothers for the five year term from (date) to (date).

Signed.....

The term of (name), as a Trustee of the Benefit Association of Cheney Brothers, expires on (date).

The blank nominating ballot, as specified in this section, shall be placed in the pay envelope of each full or limited member, or distributed in any other manner which the trustees may prescribe. These ballots shall be filled out by the members and collected and returned to the president of the association in such manner as the trustees may from time to time prescribe.

Section 2. The trustees representing the members shall canvass the nominating vote and prepare a formal ballot containing the names of five nominees eligible to the office of trustee, which is to be vacated, from those who received the highest number of votes on the nominating ballot.

Section 3. Not less than one week before the annual meeting of the board of trustees a formal vote for the election of a trustee to represent the members shall be taken on the ballots prescribed in section 2, above, which shall be collected in such manner as the trustees may from time to time direct, by tellers to be appointed by the trustees representing the members, and the person receiving the highest number of votes shall be declared elected a trustee. Trustees shall not vote on the election of a trustee except in cases of a tie vote.

Section 4. Not more than two trustees shall be employed at the date of their election, in any one department.

ARTICLE XIV—AMENDMENTS TO THE BY-LAWS

Section 1. Amendments to the by-laws may be made with the approval of a majority of the trustees representing the company, and a majority of the trustees representing the members; provided that not less than one month shall have intervened between the presentation in writing to the board of trustees of a proposed amendment and its final passage.

PENSION SYSTEM

The following amendments to the regulations of the board of directors of Cheney Brothers were approved June 7, 1910. Their purpose is to systematize the present practice of the company as regards pensions, with a view to more clearly recognizing and rewarding long, efficient, and loyal services.

PENSION COMMITTEE

1. The pension system shall be in the charge of a pension committee of three members to be appointed annually by the directors of Cheney Brothers at the first regular meeting, or subsequent meeting following the annual meeting of the stockholders. The pension committee shall serve, subject to removal by the board of directors, for one year or until their successors are appointed and installed.

2. Pensions may be granted by the pension committee in accordance with the rules herein contained and under such rules and regulations as the committee may establish with the approval of the board of directors of Cheney Brothers. All new pensions, which shall be granted by the pension committee, shall be reported to the board of directors at the next regular meeting after such pensions shall have been granted.

PENSIONERS

3. Pensions may be granted to retired employees of Cheney Brothers and of any company owned, operated, or controlled by it, in whatsoever capacity engaged in the following cases:

(a) Any employee over fifty years of age, twenty-five or more years in the service, who has become totally incapacitated for further service in any employment; or any employees of as many years

of age less than fifty as they have given years of service in excess of twenty-five, if totally incapacitated for further service in any employment, may be granted a pension by the pension committee.

(b) Any male employee from sixty-five to sixty-nine years of age inclusive, twenty-five or more years in the service, who has become incapacitated for work of a like character to his past trade or employment, may make application or be recommended for retirement; and the pension committee shall decide whether or not he shall be granted a pension or given employment of a different character; or parts of both.

(c) All male employees who shall have been twenty-five or more years in service shall be retired on the first day of the calendar month following that in which they shall have attained the age of seventy, unless in any case the pension committee shall fix a later date for such retirement. To employees so retired pensions may be granted by the pension committee.

(d) Any female employed, from fifty-five to fifty-nine years of age inclusive, twenty or more years in service, who has become incapacitated for work of a like character to her past trade or employment may make application or be recommended for retirement, and the pension committee shall decide whether or not she shall be granted a pension or given employment of a different character; or parts of both.

(e) All female employees twenty or more years in the service shall be retired at the age of sixty on the first day of the calendar month following that in which they shall have attained such age, unless in any case the pension committee shall fix a later date for such retirement. To employees so retired pensions may be granted by the pension committee.

(f) A physical examination by one or more physicians appointed by the pension committee may be required of any employee applying for a pension on the grounds of incapacity.

(g) Male and female employees who shall occupy executive, administrative, or clerical positions shall be exempt from the maximum age limit.

DEFINITIONS

4. The terms "service" and "in the service" shall apply to all employees of Cheney Brothers and of any company owned, operated, or controlled by it, who receive a stated and regular compensation from any of said companies.

5. The term of service must be continuous and shall be computed from the date the employee commenced service with the original company, the property and business of which shall have been acquired by Cheney Brothers, except as stated in paragraphs 6 and 7.

6. A temporary lay-off on account of illness or of a reduction of force shall not be considered a break in the continuity of service, but, if absence from either of such causes shall exceed six consecutive months, it shall be deducted in computing the length of active service.

7. The length of service of any person who shall terminate his employment without notice of leave and is afterwards re-employed may be computed from the date of re-employment: and that of any person who is re-employed after an absence of two years or more shall be computed from the date of re-employment.

AMOUNT OF PENSIONS AND CONDITIONS

8. The committee on pensions may authorize the treasurer of the company to pay monthly to an employee who shall be retired as aforesaid 10 per cent of the average actual monthly pay of such employee during the ten years next preceding retirement, with an additional 1 per cent of the same rate for every year of service; except that in case of pensions granted on the grounds of total incapacity for work at any employment, the pension committee may at their discretion authorize the deduction of an amount from the pension of not to exceed 1 per cent for each year of age less than sixty-five for men and fifty-five for women.

9. Pension allowances shall be paid on the first working day of each month from the date of retirement unless suspended by the pension committee as provided in paragraph 15.

10. The pension committee may in its discretion direct that pension allowances be continued to the widow and children, or either, of a pensioner for such period as to the committee, may seem proper.

11. Pensioners retired from active service may be required by the pension committee to perform such services for the company as are suited to their capacity, but the acceptance of a pension shall not debar a pensioner from engaging in any business which, in the judgment of the pension committee, will not be prejudicial to his obligations to Cheney Brothers or to any company owned, operated, or controlled by it, as defined in this paragraph.

12. No pension may be granted by the pension committee to

any employee, eligible either to full or limited membership in the Benefit Association of Cheney Brothers, who is not a member in good standing of such benefit association. No pension grant shall become effective and operative until after the payments of all sickness and accident benefits which the pensioner may be entitled to receive from the Benefit Association of Cheney Brothers shall have ceased.

13. Nothing herein contained, nor the establishment or maintenance of a pension system, nor the grant of any pension, nor any other action now or hereafter taken by the company or by the pension committee in relation thereto, shall be or be construed as a contract or to give to any officer, agent, or employee any right to be retained in the service of the company or of any company owned, operated, or controlled by the company, or to give to any officer, agent, or employee any right to any pension, or to the continuance of any pension which may be granted.

14. The company expressly reserves, regardless of anything in these rules contained, the right to discharge, without liability other than for salary or wages due and unpaid, any employee at any time, whenever in the judgment of the officers of the company, the interests of the latter may so require.

15. Regardless of anything herein contained the directors of Cheney Brothers may at any time grant pensions where the terms of service are less than twenty-five years for men, or twenty years for women, or to persons or for ages and in amounts different from those in these rules set forth; and such pensions and any pensions granted under these rules may at any time and from time to time be suspended or terminated without any liability whatsoever to the pensioner.

HOW TO SECURE A PENSION

16. An employee who wishes to obtain a pension may apply to the superintendent at the works in which he is employed or to the head of the department in which he is serving, who, in turn, will report such application to the pension committee. A form of application will then be furnished, in which must be set forth the applicant's age, length of service, and wages. This application must be filled out and signed by the applicant and by the work's superintendent, or head of the department in which the applicant is employed and when thus completed to be presented to the secretary of the pension committee at his office.

TERMINATION OR SUSPENSION OF A PENSION

17. The pension committee shall keep informed as to the whereabouts and physical condition of pensioners, and shall advise the treasurer of the company of the death of any pensioner and of the suspension or termination of any pension, and of any other circumstances which may affect any monthly payment to be made by the treasurer. A receipt shall be required for every pension payment. The pension committee may at its discretion suspend the pension of any person who fails to advise them monthly of his physical condition or whereabouts.

18. No pension shall be pledged or transferred without the written consent of the Pension Committee.

19. Pension allowance may be suspended temporarily or terminated in the case of gross misconduct, or in the event of any attempt to assign, transfer, or pledge the same. The pension committee may in its discretion pay the whole or part of a pension to an institution, home or person other than the pensioner for his or her care and maintenance.

ESTIMATE OF AMOUNT OF PENSIONS FOR VARIOUS RATES OF WAGES AND TERMS OF SERVICE

Term of Service	Average Monthly Rate of Wages								
	\$36	\$40	\$45	\$50	\$60	\$70	\$80	\$90	\$100
20 years..	\$10.80	\$12.00	\$13.50	\$15.00	\$18.00	\$21.00	\$24.00	\$27.00	\$30.00
25 " ..	12.60	14.00	15.75	17.50	21.00	24.50	28.00	31.50	35.00
30 " ..	14.40	16.00	18.00	20.00	24.00	28.00	32.00	36.00	40.00
35 " ..	16.20	18.00	20.25	22.50	27.00	31.50	36.00	40.50	45.00
40 " ..	18.00	20.00	22.50	25.00	30.00	35.00	40.00	45.00	50.00
45 " ..	19.80	22.00	24.75	27.50	33.00	38.50	44.00	49.50	55.00
50 " ..	21.60	24.00	27.00	30.00	36.00	42.00	48.00	54.00	60.00
55 " ..	23.40	26.00	29.25	32.50	39.00	45.50	52.00	58.50	65.00

<p align="center">CERTIFICATE OF ILLNESS</p> <p align="center">TO THE BENEFIT ASSOCIATION OF CHENEY BROTHERS</p> <p align="center">I CERTIFY THAT</p> <p>M _____ (FULL NAME)</p> <p>_____ (STREET)</p> <p>_____ (TOWN)</p> <p align="center">IS UNDER MY PROFESSIONAL CARE AND TREATMENT FOR</p> <p>_____</p> <p align="center">PARTIALLY</p> <p>AND IS WHOLLY DISQUALIFIED FROM PURSUING HIS _____ USUAL</p> <p>VOCATION.</p> <p align="right">_____ M. D.</p> <p>_____</p> <p align="right">_____ 19</p> <p align="center">THIS CERTIFICATE MUST BE MAILED OR DELIVERED TO THE BENEFIT ASSOCIATION OFFICE OF CHENEY BROTHERS AND NOT TO TIME KEEPERS.</p> <p align="center">IF THIS IS NOT DONE THE RESPONSIBILITY FOR ERROR IS WHOLLY UPON THE MEMBER APPLYING FOR BENEFIT.</p>	
---	--

Figure 29. Certificate of Illness. (Size 5 $\frac{3}{8}$ x 5 $\frac{3}{8}$.)

This form is used in checking up employees entitled to compensation in accordance with the constitution and by-laws of the Benefit Association of Cheney Brothers. For a complete discussion of benefit associations, see Chapter XXIII.

NOTICE OF MEMBERSHIP IN THE
BENEFIT ASSOCIATION OF CHENEY BROTHERS

South Manchester, Conn., 19...

M.....

You are hereby notified that from the date of your entering the employment of Cheney Brothers you have been enrolled as a statutory member of the Benefit Association of Cheney Brothers and are thereby eligible to any compensation provided by law.

You are hereby further notified that you are eligible for ^{full} ~~limited~~ membership in Class..... of such Association, entitled to the benefits thereof and subject to the conditions of the Constitution and By-Laws of the Association, a copy of which is enclosed herewith.

Unless written notice of your wish not to accept such membership is received before you will be enrolled as a ^{full} ~~limited~~ member of Class....., dating from....., a certificate ^{full} ~~limited~~ membership will be issued to you and a deduction of.....cents per week will be made from your wages thereafter.

Signed:

..... Superintendent Benefit Association.

NOTE:—Forms for the rejection of membership may be obtained from the Superintendent of the Benefit Association at the Main Office of Cheney Brothers.

Figure 30. Sample Notice of Membership in Benefit Association.
(Size $7\frac{3}{8} \times 4\frac{1}{2}$.)

For a specimen form for the rejection of membership, see Figure 31.

**FORM FOR THE REJECTION OF FULL MEMBERSHIP
IN THE
BENEFIT ASSOCIATION OF CHENEY BROTHERS**

I hereby decline to be enrolled as a full member of the Benefit Association of
Cheney Brothers, in accordance with the terms of its notice to me.

Signed.....

Date.....

Figure 31. Form for the Rejection of Full Membership in Benefit Association.
(Size $6\frac{1}{8} \times 3\frac{3}{8}$.)

Unless an employee signifies a wish not to accept membership, he is usually enrolled in
accordance with the terms of the notice (Figure 30) sent.

**CERTIFICATE OF FULL MEMBERSHIP
IN THE
BENEFIT ASSOCIATION OF CHENEY BROTHERS**

No.

Date

This Certifies that

of in the State of Connecticut is a Full Member
of the Benefit Association of Cheney Brothers, entitled to the benefits and privileges of
membership and subject to the obligations thereof in accordance with the Constitution
and By-Laws of the Association and the conditions on the reverse side of this Certificate.

Membership shall be in effect from the day

of

19

Signed by

Superintendent of the Benefit Association of Cheney Brothers

For terms of membership see reverse side

Figure 32. (a) Certificate of Full Membership in Benefit Association (face).
(Size $6\frac{1}{2} \times 4\frac{1}{4}$.)

TERMS OF MEMBERSHIP.

Membership is accepted by the person named in this Certificate upon the following terms:

(a) That he shall be bound by the Constitution and By-Laws of the Association and by all amendments thereto, and all rules and regulations in force during the term of their membership.

(b) That his habits of life are correct and temperate; that he is in sound condition, mentally and physically, except as set forth in the statement made by him to the Superintendent or his agent. (Article VIII, Section 13 of the By-Laws.)

(c) That unless a member shall otherwise designate in writing with the approval of the Superintendent of the Association death benefits in excess of those required by law under Article VII, and death benefits from sickness under Article V and VI shall be paid to the dependents of the deceased, if any, in accordance to the relative degrees of their dependency existing at the time or times of payment, as determined by the trustees, whose decision shall be final as to all questions of dependency.

That unless a member shall otherwise designate in writing with the approval of the Superintendent of the Association death benefits described in the above paragraph in case there are no dependents shall be payable as follows and in the following order: (1) to the widow (husband) if surviving; or (2) if there be no widow (husband) to the surviving children and the children of any deceased child or children, the children of a deceased child to take the parent's share; or (3) if there shall be no child of said member, or child or children of

a deceased child or children, to the surviving parents or parent; or (4) if there be no surviving parent, then to the next of kin, payment in behalf of such kin to be made to the executor or administrator; or (5) if there be no next of kin, or if claim shall not be made by the person or persons entitled thereto within two years from the date of the member's death, the amount of the death benefit shall be paid into and become a part of the Reserve Fund of the Association.

(d) If any statement made by the member to the Superintendent or his agent shall be untrue or fraudulent or if he shall have concealed any facts or shall have resigned from or left voluntarily or otherwise the service of Cheney Brothers or any company owned, operated or controlled by it, all his rights and privileges to full or limited membership in the Association and claims to benefits arising therefrom shall terminate, except his right to the amounts contributed to the annuities specified in Article IX of the By-Laws and except that the termination of employment shall not, in the absence of any other causes of termination of membership, deprive him of benefits to which he may be entitled by reason of disability beginning and reported before and continuing after the termination of employment. (Article I, Section 6, Article VIII, Section 13 of the By-Laws.)

(e) That Cheney Brothers by its proper agents may during the continuance of his membership apply as a voluntary contribution from any wages earned by him in their employment such contributions as the trustees may establish for the purpose of securing the benefits provided in the By-Laws for a member of this Association.

(Article III, Section 2 of the By-Laws.)

Figure 32. (b) Terms of Full Membership in Benefit Association (reverse)

**CERTIFICATE OF LIMITED MEMBERSHIP
IN THE
BENEFIT ASSOCIATION OF CHENEY BROTHERS**

No. _____

Date _____

This Certifies that _____

of _____ in the State of Connecticut, is a Limited Member of the Benefit Association of Cheney Brothers, entitled to the benefits and privileges of membership and subject to the obligations thereof in accordance with the Constitution and By-Laws of the Association and the conditions on the reverse side of this Certificate.

Membership shall be in effect from the _____ day of _____ 19____

Signed by _____

Superintendent of the Benefit Association of Cheney Brothers.

For terms of membership see reverse side

Figure 33. Certificate of Limited Membership in Benefit Association (face).
(Size $6\frac{1}{2} \times 4\frac{1}{4}$.)

On reverse of this certificate appear the terms of membership as shown in Figure 32b.

ACCIDENT REPORT

[To be filled in by some one designated person in each department as soon as possible after the occurrence of the accident]

Date _____

Date of accident _____ hour _____

Name of injured person _____

Address _____ Place of Accident _____

Occupation _____ Aver. wages for last 13 weeks _____

Under whose immediate direction was the work being done? _____

Nature and extent of injury _____

How did the accident occur? _____

Was surgical aid rendered? _____ By whom? _____

When? _____ Where? _____

Where was the injured person finally taken? _____

In Case of Serious Accident:

Who saw accident _____

Description of accident by eye witnesses _____

Signed _____

Figure 34. (a) Accident Report Blank (first page). (Size $7\frac{3}{4} \times 10\frac{1}{4}$.)

(To be filled in by Superintendent of Benefit Association)

Age _____; Married _____ Number of dependent children under sixteen _____
 Single _____
 Was _____ member of Benefit Association?
 How long in the service of the Company? _____ years
 Probable duration of disability from employment _____

Statement of Foreman:

(To be filled in by Company's Inspector)

Was accident due to:— (a) want of ordinary care on the part of the injured person? _____

(b) on the part of fellow workman? _____

(c) any defect in machinery, tools or plant? _____

2. Had the defect been reported to you? _____ If so, when? _____

Had any steps been taken to remedy it? _____

3. Did the injury occur in the necessary performance of work connected with the job on which the person was employed? _____

4. How long had injured person been employed on this particular job? _____

Was there evidence of incompetence? _____

Does person understand English? _____

Had the person been properly instructed as to the danger of accident connected with the job?

By whom? _____ When? _____

5. Was there evidence of intoxication, its after effects or habitual use? _____

Of disobedience of orders? _____

Of violation of rules? _____ Of fooling or fighting? _____

6. Was the injury due to unprotected gears, belts, or dangerous parts? _____

Were there other dangerous structural conditions than the above in the machinery or appliances? _____

Was machinery in any way out of order or ill-suited to the work? _____

7. Was the light at place of accident good? _____

8. Previous to the injury had any steps been taken to remedy known defects or probable causes? _____

Since the injury have any measures been taken to prevent a recurrence of similar accidents? _____

Figure 34. (b) Accident Report Blank (second page)

(Report of Examining Committee:

This accident should be classified as due to the ;

Fault of injured person.....

Fault of fellow workman.....

Fault of employer.....

Fault of both employer and employee.....

Hazard of the trade.....

Report of Medical Examiner:

First aid given..... hour.....

Number of office treatments.....

Number of house treatments.....

Case sent to hospital.....

Cost of drugs and dressings.....

Case discharged.....

Ordered to report for work on.....

DESCRIPTION OF CASE:

Figure 34. (c) Accident Report Blank (third page)

Disposition of Case:

COST			DESCRIPTION
First Aid.....			
Statutory surgical, medical care.....			
Ben. Ass'n, surgical, medical care.....			
Hospital maintenance, etc.....			
Statutory benefits.....			
Benefit Association benefits.....			
Cheney Brothers' allowances.....			
Pension.....			
Total			

ACCIDENT REPORT

OF

Name.....

Dept.....

Case No.

Figure 34. (d) Accident Report Blank (fourth page)

Name _____										Certificate No. _____									
DATE MEMBERSHIP	CLASS	AMT. CONT.	A D B.		TOTAL CONTR.	OCCUPATION	AGE	DATE OF BIRTH											
			AMT.	CONT.															
									Membership Ceased										
									Annuity										
									Allowed										
Months	19	19	19	19	19	19	19	19	19										
April																			
May																			
June																			
July																			
Aug.																			
Sept.																			
Oct.																			
Nov.																			
Dec.																			
Jan.																			
Feb.																			
March																			
TOTAL																			

Figure 37. (a) Personal Record Card (face). (Size $7\frac{3}{4} \times 5$.)

Entries of receipts and relevant data arising from the individual's membership in the Benefit Association are made on this side of his card.]

[illegible]

Figure 37. (b) Personal Record Card (reverse)

A summary of disbursements and a statement of the condition of the reserve fund is given here. Detailed information may be found on the accident disability record (Figure 35) and the sickness disability record (Figure 36).



INDEX

A

Accident prevention (See "Safety")
 Accident prevention score-board,
 256

Accidents, 167 (See also "Benefit
 associations")
 effect upon labor, 168
 frequency rates, Figure, 239
 lost time from, 167, 246
 record sheet, 246
 reduction, 238, 241
 report blank, Figure, 506-509
 statistics, 168

Advertising in plant newspapers, 304

Akron, Ohio,

housing plan,

Firestone Tire and Rubber Co.,
 330

Goodyear Tire and Rubber Co.,
 330

Alexander, Magnus, F., 4

Aliens (See "Foreign-born")

Alpha Portland Cement Co., acci-
 dents, 241

Ambulance room (See "First-aid
 room")

American Cast Iron Pipe Co., medical
 department, 190

American Chain Co.,

Americanization work, 153

mutual benefit association, 351

American Civic Association,

"a good home for every wage-
 earner," 336

housing studies, 307

American International Shipbuilding
 Corporation, industrial relations
 department, 35

American Multigraph Company
Center Punch, 51, 292, 304

American Pulley Co., 421

American Rolling Mill Co.,
 Americanization work, 150

English classes, 144

health work, 144

medical department, 189

American Smelting and Refining Co.,
 pension system, 369

American Sugar Refining Co., pension
 system, 370

American University of Trade and
 Applied Commerce, of John
 Wanamaker Company, 115

American Woolen Co.,

group insurance, 365

housing plan, 321

Americanization, 121-134

aids to, 148-164

governmental, 161

American Chain Co., 153

American Rolling Mill Co., 150

Brown and Sharpe Manufacturing
 Co., 157

census card, 156

chambers of commerce, 162

committees, 127

English classes, 135-147

W. H. McElwain Co., 153

National Cash Register Co., 402

National conference, 136

- Americanization—*Continued*
 pay envelope circulars, 154
 plant spirit, 129
 recreation as aid to, 217
 Schwartzbach-Huber Co., 125
 Syracuse Chamber of Commerce,
 163
 training teachers for, 137
 Amoskeag Manufacturing Co., hous-
 ing plan, 321
 Annuities for service, 369
 Apprenticeship,
 agreement, 451
 Remington Arms Co., 452
 schools, 98
 Cincinnati Milling Machine Co.,
 108
 Associations (See also "Benefit
 associations," "Co-operative as-
 sociations," and "Musical asso-
 ciations")
 for industrial training, 120
 for safety, 447
 Atchison, Topeka and Santa Fé
 Railroad System, accidents, 118,
 238
 Athletics, 218, 222, 403
 Attendants, dispensary, 186
 Atterbury, W., 258
 Avery Co.,
 medical examinations, 194
 safety work, 256
 Awards for suggestions, 267, 271
- B**
- Bancroft, Joseph, and Sons,
 kindergartens, 401
 lunchroom, 282
 Bands (See "Brass bands")
 Banks, co-operative, 355
 Baseball games, 223
 Bell Telephone Co., pensions, 372
 Beloit, Wisconsin,
 Fairbanks Morse Co., housing plan,
 322
- Benefit associations,
 Figures, 502-506, 509-513
 American Chain Co., 351
 Bridgeport Brass Co., 345
 Cheney Bros., 473-497
 computation for payments, 347
 Dodge Manufacturing Co., 354,
 454-472
 employer's aid, 341
 failure due to lack of financial skill,
 359
 Flint Vehicle Co., 353
 General Electric Co., 353
 H. C. Huyck and Sons, 350
 organization, 342
 Pennsylvania Railroad Co., 344
 types, 344-356
 White Motor Co., 349
 Bethlehem, Pa., housing report, 312
 Bethlehem Shipbuilding Corporation,
 96
 employees' service department, 28
 industrial relations department, 35
 medical department, 179
 Bethlehem Steel Corporation, 35, 121
 brass band, 229
 English classes, 137, 140
 first-aid training, 206
 Bloomfield, Daniel, "Employment
 management," 55
 Bloomfield, Meyer,
 "Handbook on Employment Man-
 agement," 421
 "Relation of Foremen to the Work-
 ing Force," 83
 Bolen, G. L., "Getting a Living," 18
 Bonuses, E. A. Mallory and Sons,
 374
 Boston University, training course for
 industrial nurses, 187
 Bourne Mills, profit-sharing, 375
 Bradley Knitting Co., housing plan,
 332
 Brass band, 227
 cost of, 228

Bridgeport Brass Co., benefit association, 345
 Bridgeport, Conn., housing report, 311
 British Ministry of Munitions, study of industrial restaurants, 276
 Britton, Dr. James A., 179
 Brown and Sharpe Manufacturing Co.,
 Americanization work, 157
 training system, 106
 Budget for employees' service department, 54
 Building and loan associations (See "Housing plans")
 Bulletin Boards for safety work, 254
 Burritt, A. W. Co., profit-sharing plan, 379
 Bush Terminal, recreation work, 225
 Business manager of plant newspaper, 303

C

Cadbury Bros., medical examinations, 196
 Cadillac Motor Car Co.,
 accidents, 240
 restaurant, 282
 Cafeterias (See "Lunchrooms")
 Caldwell, Dr. Charles P., 318
 California commission on housing and immigration, 130
 Candee, L. Co.,
 employees' service department, 28
 English classes, 145
 Canteens, 65
 Carnegie Steel Co.,
 English classes, 146
 medical department, 179
 Cartoons in plant newspapers, 294
 Census in Americanization work, 156
Center Punch, American Multigraph Co., 51, 292, 304
 Chambers of commerce, Americanization work, 162

Chandler, W. L., 256, 354
 Cheney Bros.,
 benefit association by-laws, 473-497
 pension system, 497-501
 Chester Shipbuilding Co., English classes, 143
 Chicago,
 Americanization work, 161
 Municipal Tuberculosis Sanatorium, 318
 Tuberculosis Institute, Report of Committee on Factories, 1913, 179
 Choral societies (See "Glee clubs")
 Cincinnati Milling Machine Co., apprenticeship system, 108
 Cincinnati Planer Co., group insurance, 363
 Cities, recreation work, 214
 Citizenship, 157, 159, (See also "Americanization")
 circulars urging, 154
 Civic centers, 392
 Civics and industry, 390-409
 Clark Equipment Co., housing plan, 324
 Classes for foreign-born,
 attendance problem, 138, 141
 English, 136
 Cleveland, Ohio,
 Americanization work, 161
 Chamber of Commerce, Americanization work, 163
 housing report, 312
 Cleveland-Cliffs Iron Co., English classes, 144
 Cleveland Worsted Mills Co., lunchroom, 281
 Clinics, industrial, 177
 Cloak and suit industry, labor turnover, 8
 Cloakrooms, 66
 Clubhouses, 219
 Colorado Fuel and Iron Co., recreation work, 223

- Committees,
 employees' service department, 28
 safety organization, 432
 Commonwealth Edison Co., sugges-
 tion system, 274
 Commonwealth Steel Co., 75, 237
 accidents to non-English-speaking
 employees, 146
 brass band, 229
 Commonwealth, 295
 lunchroom, 279
 Community Motion Picture Bureau,
 151
 Community organization, relation to
 industry, 390-409
 Community secretaries, 392
 Community service,
 Merchant Shipbuilding Co., 399
 National Cash Register Co., 395
 Norton Co., 397
 organization of, 391
 special industrial plans, 393-409
 Community singing, 404
 Conferences,
 employees' service department, 44
 plant newspapers, 302
 Converse Rubber Shoe Co., English
 classes, 146
 Co-operation,
 employer and community, 207,
 390-409
 in Americanization, 160
 employer and employee, 12, 69-86,
 127
 industry and public education,
 163
 Co-operative associations, 354
 Co-operative banks, 355
 Co-operative courses, 99
 Co-operative plants, Co-operative
 Boot and Shoe Co., 356
 Cost of hiring, 5
 Cost of labor turnover, 10, 420
 Council of National Defense, sanitary
 standards, 424
 Country clubs, Curtis Publishing Co.,
 220, 226
 Cramer, Frank, "Talks to Students
 on the Art of Study," 102
 Crandall, Miss Ella P., 201
 Crane Co., group insurance, 364
 Curtis Publishing Co.,
 country club, 220, 226
 lunchroom, 278
 orchestra, 231
 restrooms, 205
 training system, 118
- D**
- "The Day's Work," 153
 Dearborn, "How to Study," 102
 Deere and Co., group insurance, 364
 Delaware Council of Defense, 159
 Delaware, naturalization, 159
 Dennison, Henry S., on profit-shar-
 ing, 377
 Dental clinic,
 National Cash Register Co., 199
 operation of, 197
 Dental service, 197
 Detroit Board of Commerce, 162
 Detroit, labor turnover, 7
 Dewitt, C. C., 142
 Diet, importance of, 276
 Disability record, Figure, 510, 511
 Discharge regulations, 71-74
 Dispensary attendants, 186
 Dodge Manufacturing Co.,
 accident prevention score-board,
 257
 accidents, 241
 mutual relief association, 354
 by-laws, 454-472
 safety work, 254
 Donnelly, R. R. and Sons Co., school
 for printers, 118
 Dramatics, 233
 Draper Co., housing plan, 331
 DuPont de Nemours, E. I. Co.,
 group insurance, 364

DuPont Fabrikoid Co., Americani-
zation work, 153

E

Eastern Manufacturing Co.,
brass band, 230
restrooms, 219

Eastman Kodak Co.,
accidents, 240
Kodak Park Bulletin, 299
medical department, 172
recreation park, 220
safety work, 248, 251
suggestion blanks, 264-267
suggestion system, 264
visiting nurse, 202

Eclipse Park, Beloit, Wis., 322

Edholm, Charlton, 122

Edison Storage Battery Co., bulle-
tins, 299

Edison, Thomas A. Inc., employees'
service department, 37

Editors, of plant newspapers, 295, 299

Education, 402

Educational systems (See "Indus-
trial training")

Efficiency,
due to health of workers, 165
in labor maintenance, 3

Ellsworth Collieries Co., brass band,
230

Emergency hospital, 177

Employees,
classification for estimating em-
ployment costs, 420
co-operative associations, 354
discharges, suspensions, and trans-
fer, 71-74
foreign-born, 121-134
group insurance, 357-368
health and hygiene, 165-173
lunchrooms, 275-290
morale among, 69-86
mutual benefit associations, 339-
356

Employees—*Continued*
record card, Figure, 512-513
recreation, 208-221
stock participation, 356
suggestions from, 259-274
trained, 94

Employees' magazine (See "Plant
newspaper")

Employees, new, 47
adjustment to job, 95
instructions for, 48
interviewing, 48
labor turnover among, 47
training, 92

Employees' service department,
Figures, 29, 31, 33, 38, 39
activities of, 52
Bethlehem Shipbuilding Corpora-
tion, 28
budget, 54
L. Candee Co., 28
conferences, 44
co-operation of employee and em-
ployer by, 22
correlation with employment de-
partment, 61
Edison Thomas A., Inc., 37
files and records, 43
functions, 26-41
Hood Rubber Co., 28
office organization, 42
organization, 26-55
place in industry, 19-25
place in plant, 26-41
planning a program for, 47
plant newspaper, 300
Plimpton Press, 31
real estate bureau and room regis-
try, 333
size, 42
special studies and reports, 45
table showing effect of service work,
Figure, 40
terminology, 32
value of, 20

- Employees' service manager, duties
 and qualifications, 56-68
 Employment,
 costs, 421
 functions or employees' service
 department, 28
 meaning of term, 32
 of working force, 4
 Employment department, correla-
 tion with employees' service
 department, 61
 Employment management, War
 Emergency Training Course at
 University of Rochester, 26
 Employment manager,
 accessible to employees, 44
 duties of, 62
 Endicott-Johnson Co., profit-sharing
 plan, 383
 England (See "Great Britain")
 English for foreigners, 135-147
 English language,
 classes,
 American Rolling Mill Co., 144
 Bethlehem Steel Corp., 137, 140
 L. Candee and Co., 145
 Carnegie Steel Co., 146
 Chester Shipbuilding Co., 143
 Ford Motor Co., 142
 Goodyear Rubber Co., 143
 Hamilton Mills, 145
 Norton Co., 145
 Organization, 136
 D. E. Sicher and Co., 135
 Willard Storage Battery Co., 144
 methods of teaching, 135-147
 results of teaching, 146
 Europe, accidents in, 168
 Examinations, physical (See "Med-
 ical examinations")
 Examining room of medical depart-
 ment, 180
 Executive board of employees' ser-
 vice department, 30-31
 Eye treatment, 200
- F**
- Fairbanks Morse Co., housing plan,
 322
 Farnum, Dr. C. G., 194
 Farquhar Beneficial Association,
 Pennsylvania Agricultural Works,
 353
 Federal Board for Vocational Educa-
 tion, Washington, D. C., 119
 Festivals (See "Pageants and festi-
 vals")
 Filene's, William Sons Co.,
 dramatic society, 233
 training system, 116
 Files, 43
 Filing-room of medical department,
 180
 Financial aids,
 to employees, mutual benefit asso-
 ciations, 338-356
 Financing plant newspaper, 303
 Firestone Tire and Rubber Co.,
 discharge regulations, 71
 housing plan, 330
 First aid in illness and injury, 65
 "First-aid room," 177
 British government's require-
 ments for, 190
 First aid, training in, 206
 Fisher, Boyd, 7
 Fisk Rubber Co., *Fisk Bulletin*,
 299
 Flint Vehicle Factories, mutual bene-
 fit association, 340, 353
 Food, importance of good, 276
 Food values, table of, 289
 Ford English School, 142
 Ford Motor Co.,
 brass band, 229
 labor turnover, 7
 Fore River Plant, Bethlehem Ship-
 building Corporation (See
 "Bethlehem Shipbuilding Cor-
 poration")

- Foreign-born,
 - Americanization census, 156
 - attitude toward, 124
 - influence upon industry, 121
 - plant newspapers for, 299
 - recreation, 217
- Foremen,
 - attitude toward foreign-born, 126
 - duties and qualifications, 80
 - plant newspaper for, 297
 - responsibility for safety, 242, 433, 439
- Frick, H. C. Coke Co., Americanization work, 153

G

- Gardens for employees, 400
- Gary, Ind., housing plan, U. S. Steel Corporation, 330
- General Electric Co.,
 - housing plan, 333
 - mutual benefit associations, 353
 - training system, 118
- General Fireproofing Co., Americanization work, 156
- General manager, relation to employees' service department, 38
- General Motors Corporation,
 - housing plan, 325
 - hotel club for men, 332
- Gilman, N. P., 376
- Girls (See "Women and girls")
- Glee clubs, 230-233
- Good-will of workers, 12, 69-86
- Goodrich, B. F. Rubber Co.,
 - bureau of education, 132
 - industrial relations department, 35
- Goodyear Tire and Rubber Co.,
 - Americanization work, 148
 - English classes, 143
 - housing plan, 330
 - labor department, 36
 - recreation work, 226
 - training system, 110
- Gould, Ernest C., 60

- Government aid in Americanization, 161, 162
- Gray, William and Co., profit-sharing plan, 383
- Great Britain,
 - first-aid room requirements, 190
 - Health of Munitions Workers Committee, 63
 - housing plans, 307, 332
 - welfare work in, 16, 63
- Greenfield Tap and Die Corporation,
 - plant newspaper, 295
- Grievances, A. W., 4
- Group insurance (See "Insurance, group")

H

- Hall-Scott Motor Car Co., profit-sharing plan, 382
- Hamilton Mills, English classes, 145
- Hamilton, Ohio, housing report, 313
- Hamilton Watch Co., lunchroom, 281
- Hammond, W. J., 204
- Harvard University, Medical School, 184
- Harvey, Dr. A. M., 179
- Haskell and Baker Car Co., accidents, 240
- Health and hygiene,
 - advantages in industry, 165
 - effect of good housing, 318
 - lunchroom and restaurants, 275-290
 - of employees, 165-173
 - standards of, 170
- Health campaigns, 205
- Health department (See "Medical department")
- Health of Munitions Workers Committee, Great Britain, 290
- recommendations, 63-67
- Hercules Powder Co., suggestion system, 273
- Hiring (See "Labor turnover," "Employment")

- Hog Island Shipyard, labor turnover, 8
- Homestead Association, American Woolen Co., 322
- Hood Rubber Co., employees' service department, 28
- Hopedale, Mass., housing plan, Draper Co., 331
- Hospitals, emergency, 177
equipment, 178
- Hospitals, industrial, 177
- Hotels, General Motors Corporation, hotel for men employees, 332
- House organ (See "Plant newspapers")
- Housing corporations, organization and management, 334
- Housing of immigrants, 130
- Housing plans,
American Civic Association studies, 307
American Woolen Co., 321
Amoskeag Manufacturing Co., 321 and labor turnover, 306, 310
Bethlehem, Pa., 312
Bethlehem Shipbuilding Corporation, 333
Bridgeport, 311
Clark Equipment Co., 324
Cleveland, Ohio, 312
Fairbanks Morse Co., 322
Firestone Tire and Rubber Co., 330
General Electric Co., 333
General Motors Corporation, 325
Goodyear Rubber Co., 330
Great Britain, 307, 332
Hamilton, Ohio, 313
in peace time, 317
in war time, 307, 309
Indianapolis, Ind., 313
industrial, 306-338
Nelson Co., 331
Norton Co., 331
real estate bureau, 333
room registry, 333
- Housing plans—*Continued*
special types, 321-338
suggestions for solution, 319
Talbot Mills, 328
United States Chamber of Commerce, 334
United States Steel Corp., Gary, Ind., 330
Howard, Clarence H., 75.
Hunt, E. B., 344
Huyck, F. C. and Sons, mutual benefit association, 350
Hydraulic Pressed Steel Co., *Hydraulic Press*, 299
Hygiene (See "Health and hygiene")
- I**
- Indianapolis, Ind., report of United States Housing Corporation, 313
Industrial Americanization (See "Americanization")
Industrial clinic, 177
Industrial communities, 390-409
Industrial housing, 306-338
Industrial hygiene (See "Health and hygiene")
Industrial medicine, 171
course of study, University of Cincinnati, 185
Harvard University, 184
Industrial physicians (See "Physician, industrial")
Industrial relations, 69-86
Industrial relations department, 35
B. F. Goodrich Rubber Co., 35
Goodyear Tire and Rubber Co., 36
International Harvester Co., 35
Merchant Shipbuilding Corporation, 35
Industrial relations manager, 41
Industrial training,
advantages, 87, 94
aids to, 119
aims, 88

Industrial training—*Continued*

- Brown and Sharpe Co., 106
- equipment, 102
- William Filene's Sons Co., 116
- Goodyear Rubber Co., 110
- history, 89
- instructors, qualifications of, 101
- Larkin & Co., 109
- Merchant Shipbuilding Co., 119
- methods, 101
- need of, 87
- Packard Motor Car Co., 114
- Pennsylvania Railroad Co., 104
- reduces labor turnover, 94
- shop and school, correlation, 102
- D. E. Sicher & Co., 148
- Simonds Manufacturing Co., 109
- systems, 104-120
- War emergency training, 100
- Western Electric Co., 111
- Industry, social aspects, 390-409
- Instructions for new employees, 48
- Insurance,
 - group, 357-368
 - American Woolen Co., 365
 - as a stabilizing force, New York Shipbuilding Corporation, 364
 - DuPont Co., 364
 - policy, 366
 - principles and organization, 361-368
 - special plans, 361-368
 - legislative control, 359
 - mutual,
 - benefit to employees, 360
 - employers aid to, 359
 - scope, in industry, 358
- International Harvester Co.,
 - accidents, 240
 - foremen meetings, 83
 - industrial relations department, 35
- International Silver Co., service rewards, 373
- Interviewing new employees, 48

J

- James, William, 209
- "Psychology, Briefer Course," 102
- Jeffrey Manufacturing Co., 4
- lunchroom, 281
- Job adjuster, 96
- Job analysis, 95
- Joseph and Feiss Co.,
 - English classes, 147
 - lunchrooms, 281
- Juhnke, P. B., 450

K

- Kelly, R. W., "Training the Industrial Worker," 103, 119
- Kindergartens, 401
- Joseph Bancroft and Sons, 401
- King, J. MacKenzie, "Industry and Humanity," 12, 166

L

- Labor department (See "Industrial relations department")
- Labor stability report, Figure, 412-415
- Labor turnover,
 - among new employees, 47
 - basic factors, 3, 411, 416
 - caused by dissatisfaction, statistics, 82
 - cloak and suit industry, 8
 - cost, 10
 - costs, computing, 42
 - Detroit, 7
 - effect of housing on, 306, 310
 - elimination, 11
 - Ford Motor Co., 7
 - Hog Island Shipyard, 8
 - labor stability report, Figure, 412-415
 - metal industry, 4
 - methods of reducing, 47, 94
 - Milwaukee, 9
 - percentage, computing, 417

- Labor turnover—*Continued*
 recording methods, 410-420
 reducing by training, 94
 relation to wages, 23
 shipbuilding industry, 8
 Southern Pacific Railway Co., 8
 statistics, 4
 street railway companies, 6
 waste in, 4
 Labor unions, opposition to welfare work, 15
 Laboratory of medical room, 181
 Lake Torpedo Boat Co.,
 "Labor Efficiency Bulletins," 84
 marine band, 229
 Lane, Franklin K., 159
 "What America Means," 123
 Larkin Co., *Ourselves*, 294
 training system, 109
 Lawrence, Mass.,
 housing plan, American Woolen Co., 321
 Leclair, Ill., housing plan, Nelson Co., 333
 Lee, Dr. Frederic S., 209
 Lee, Gerald Stanley, 80
 Libraries,
 plant, 216
 public, in Americanization work, 162
 Link, Henry C., 95
 Lipman, Dr. W. H., 179
 Little, Dr. L. Z., 179
 Lost time,
 due to accidents, 246
 due to ill health, 167
 Lunchrooms, 275-290
 Joseph Bancroft and Sons Co., 282
 benefits, 276
 Cleveland Worsted Mills Co., 281
 Commonwealth Steel Co., 279
 cost, 283
 Curtis Publishing Co., 278
 equipment, 286
 Hamilton Watch Co., 281
 Lunchrooms—*Continued*
 Jeffrey Manufacturing Co., 281
 Joseph and Feiss Co., 281
 menus, 288
 method of service in, 284
 National Cash Register Co., 278
 commissary department, Figure, 280
 National Lamp Association, 279
 Ohio Malleable Steel Co., 282
 percentage of employees using, 282
 Pierce-Arrow Motor Car Co., 277
 policy, 277
 report of British Ministry of Munitions, 276
 requirements, 285
 Southern Flour Mills, 281
 United Shoe Machinery Co., 281

M

- McCormick, Harold, 147
 McElwain, W. H. Co., Americanization work, 153
 MacGregor, D. H. "Evolution of Industry," 23
 Magazines for employees (See "Plant newspapers")
 Maine, housing plan, 323
 Mallory, E. A. and Sons, wage bonuses, 374
 Managers,
 attitude toward suggestions, 260
 of plant newspapers, 303
 qualifications of, 167
 Manchester, N. H., housing plan,
 Amoskeag Manufacturing Co., 321
 Marshall, Alfred, 93
 Massachusetts, accidents in, 168
 Massachusetts, Department of University Extension, Americanization work, 163
 Massachusetts Homestead Commission, 406

- Mechanical trade training (See "Shopwork")
- Medical department, 65, 174-190
 American Cast Iron Pipe Co., 190
 American Rolling Mill Co., 144, 189
 Bethlehem Shipbuilding Corporation, 179
 Eastman Kodak Co., 172
 equipment and location, 179
 functions, 174, 191
 personnel, 183
 relation to plant, 175
 Standard Oil Co., 188
- Medical examinations, 191-197
 Avery Co., 194
 Western Electric Co., 192
- Meetings for safety, 252
- Merchant Shipbuilding Corporation, 36
 community service work, 399
 industrial relations department, 35
*News-Comp*ss, 294, 295, 297
 training system, 119
- Metal industry, labor turnover, 4
- Metropolitan Life Insurance Co., Glee Club, 232
- Miller Lock Co., housing plan, 333
- Milwaukee Coke and Gas Co., accidents, 241
- Milwaukee, labor turnover, 9
- Mining industry, recreation work, 219
- Minnequa Steel Works, brass band, 229
- Mock, Dr. Harry E., 179, 182
- Monthly Labor Review*, 314
- Morale (See "Plant spirit")
- Morey, Arthur T., 237
- Morris and Co., profit-sharing plan, 383
- Morse Dry Dock and Repair Co., *Dry Dock Dial*, 295
- Mortgages (See "Housing plans")
- Motion pictures, 219
 in Americanization work, 151
- Mulligan, J. R., 140
- Munition industry, housing problem, 307
- Music, 221, 227
 brass bands, 227
 community singing, 404
- Musical associations, 231
- Mutual benefit associations (See "Benefit associations")
- Mutual insurance (See "Insurance, mutual")
- N**
- National Americanization Committee, 122, 139, 156
- National Americanization Conference, 1919, 136
- National Cash Register Co., 205
 commissary department, Figure, 280
 community service work, 395
 dental clinic, 199
 lunchroom, 278, 280
N. C. R. News, 300
 recreation work, 225
 suggestion system, 269
- National Employment Managers' Association, 417
- National Housing Association, 318
- National Lamp Association, lunchroom, 279
- National Organization for Public Health Nursing, 201
- National Safety Council, 184, 238, 241, 245, 253, 448
- National Tuberculosis Association, 424
- Nationality,
 census of employees, 156
 survey blank for census, 158
- Naturalization, Delaware, 159 (See also "Americanization," and "Citizenship")
- Nelson, N. O., Co.,
 housing plan, 331
 profit-sharing plan, 375, 388

New England Telephone Co., *Telephone Topics*, 295

New Jersey Zinc Co., brass bands, 230
New workers (See "Employees, new")

New York Edison Co., restrooms, 205

New York Shipbuilding Corporation, group insurance, 364

New York State Industrial Commission, plan of safety organization, 430

New York Telephone Co., *Telephone Review*, 295

News-Compuls, Merchant Shipbuilding Corporation, 294, 295, 297

Night schools, 146

Nolan, John, 320, 334

Noon-hour meetings, 151

Northern Connecticut Light and Power Co., suggestion system, 273

Northwestern Steel Co., brass band, 229

Norton Grinding Co.,
community service work, 397
English classes, 145
housing plan, 331

Nurses, industrial, 184, 186, 200
training course, Boston University, 187

Nurses, visiting,
duties and qualifications, 200
training, 203

O

Office of medical department, 180

Office organization, 42

Office training, 100

Ohio Industrial Commission, 238

Ohio Malleable Steel Co., cafeteria, 282

Olmsted, F. L., 314

Ourselves, Larkin Co., 294

Owen, Robert, "History of Co-operation," 14

P

Pacific Gas and Electric Co., accidents, 240

Packard Employees' Paper, 294

Packard Motor Car Co.,
group insurance, 364
"labor maintenance efficiency," 84
restrooms, 204
training system, 114

Pageants and festivals, 396

Parks, 220

Pay envelopes,
use in Americanization work, 153, 156
use in safety work, 254

Pennsylvania Agricultural Works, Farquhar Beneficial Association, 353

Pennsylvania Coal and Coke Co., Americanization work, 153

Pennsylvania Railroad Co.,
Mutual Benefit Association, 344
recreation work, 225
training system, 104

Pensions, 369-373
American Smelting and Refining Co., 369

American Sugar Refining Co., 370

Bell Telephone Co., 372

Cheney Brothers, 497-501

Solvay Process Co., 369

Personnel department (See "Employees' service department")
Photographs, in plant newspapers, 294

Physical examinations (See "Medical examinations")

Physical training, 206

White Co., 206

Physicians, industrial,
as employees' service managers, 62
compensation, 184
duties and qualifications, 171
training of, 183

- Pierce-Arrow Motor Car Co.,
 Glee Club, 230
 lunchroom, 277
- Plant census,
 Americanization census card, 156
 in Americanization work, 156
 nationality survey blank, 158
- Plant library, in the recreation plan,
 216
- Plant maintenance, 11
- Plant newspapers, 291-305
 Greenfield Tap and Die Corpora-
 tion, 295
 in Americanization work, 153
 value of those of other concerns, 46
- Plant spirit, 69-86
 by Americanization, 129
- Play (See "Recreation")
- Playgrounds, 214, 401
 U. S. Steel Corporation, 224, 401
- Plimpton Press,
 co-operative bank, 355
 employees' service department, 31
- Powell, Joseph W., 80
- Price, C. W., 238
- Price, Dr. George M., 18, 424
- Prize contests, for suggestions, 271
- Proctor and Gamble Co.,
Moonbeams, 299
 profit-sharing, 375
- Production, plant newspapers as aid
 to, 292
- Profit-sharing,
 association for promotion of, 376
 A. W. Burritt Co., 379
 William Gray and Co., 383
 Hall-Scott Motor Car Co., 382
 history and principles, 375-389
 Morris and Co., 383
 N. O. Nelson Co., 375, 388
 profit-and-loss sharing contract,
 380
 Sears, Roebuck and Co., 385
 Solvay Process Co., 384
- Promotions, 78
- Proud, E. Dorothea, 18
- Public Libraries, in Americanization
 work, 162
- Public Schools, co-operation with in
 teaching foreign-born, 145
- Pullman Co., 14
 accidents, 240
- ### R
- Real estate bureau, for housing, 333
- Records,
 for accidents, 246
 methods of keeping, 43
 of employees, 67
- Recreation, 208-235
 advantages, 214
 and Americanization, 217-218
 and working power, 209
 Bush Terminal, 225
 Colorado Fuel and Iron Co., 223
 Goodyear Rubber Co., 226
 National Cash Register Co., 225
 need of, 208
 organized, 211
 Pennsylvania Railroad Co., 225
 Sears, Roebuck and Co., 226
 self-directed, 215
 United States Steel Corporation,
 224, 401
 Wagner Electric Manufacturing
 Co., 222
- Recreation director, duties, 215
- Redfield, William, C., 3
- Relief funds (See "Benefit associa-
 tions")
- Remington Arms Co., 117
 apprentice agreement, 452
 housing plan, 333
- Reports,
 forms for, 45
 labor stability, Figure, 412-415
- Restrooms, 65, 219
 medical department, 182
 women's, 203
- Restaurants (See "Lunchrooms")

- Rewards, 373
 Robbins and Myers Co., *R and M Co-operator*, 295
 Rochester University, 26
 Room registry, 333
 Rosenwald, Julius, on profit-sharing, 387
 Rowntree, B. Seebohm, 63
 Rubinow, I. M., "Social Insurance," 168, 358
 Rulebooks, 50
- S**
- Safety, 236-258
 Avery Co., 256
 campaigns for, 254
 committees, 243, 248, 432
 creating interest in, 252, 449
 Eastman Kodak Co., 248
 eye protection, 200
 literature, 446
 meetings, 252, 438
 organization charts, Figure, 249-250
 organization plan, 242-257, 430-450
 United States Steel Corporation, 241, 251, 259
 Safety engineer,
 duties of, 244, 436
 Figure, 245
 St. Helena, Md., housing plan, 316
 Saks & Company, hotel for women, 332
 San Diego Consolidated Gas and Electric Co., stock participation plan, 356
 Sanitary standards, National Council of Defense, 424
 Sanitation, 66
 Savings, aids to, 339
 Savings funds, Westinghouse Electric and Manufacturing Co., 355
 Sawyer, Dr. William A., 421, 423
 Schools,
 apprenticeship, 98
 medical, 184
 Schwab, Charles M., 80, 82
 Schwartzbach-Huber Co., Americanization work, 125
 Scovill Manufacturing Co., Americanization work, 153
 Sears, Roebuck and Co.,
 first-aid training, 206
 musical associations, 231
 profit-sharing plan, 385
 recreation work, 226
 Selby, Dr., 175, 186, 206
 Service, meaning of term, 34
 Service rewards, 373
 Service work (See "Employees' service department")
 Shefferman, N. W., "Employment Methods," 95
 Sherwin-Williams Co., *Chameleon*, 295
 Shipbuilding industry,
 labor turnover in, 8
 training systems, 118
 Shopwork, training, 99
 Shower baths, 207
 Sicher, D. E. Co.,
 educational plan, 148
 English classes, 135
 Sick benefit associations (See "Benefit associations")
 Simonds Manufacturing Co., training system, 109
 Slogans, for safety work, 255
 Smith-Hughes Act, 119
 Solvay Process Co.,
 Americanization work, 161
 pensions, 369
 profit-sharing plan, 384
 South Billerica, Mass., housing plan, Talbot Mills, 328
 Southern Flour Mill, lunchroom, 281
 Southern Pacific Railway Co., labor turnover, 8
 Speed-up, 294
 Spitz and Stern, "Food for the Worker," 290

Standard Oil Co.,
Lamp, 295
 medical department, 188
 Standards, sanitary, 424
 Statistics, labor turnover, 4
 Steel industry, accident frequenc
 rates, Figure, 239
 Stock, participation plan, 350
 Strawbridge and Clothier Store,
 choral society, 233
 Street railway companies, labor turn-
 over, 6
 Suggestions, 259-274
 awards for, 267, 271
 blanks for, 264
 Commonwealth Edison Co., 274
 creating interest in, 262
 from plant newspapers, 46
 handling of, 271
 Hercules Powder Co., 273
 National Cash Register Co., 269
 Northern Connecticut Light and
 Power Co., 273
 Surgical room of medical department,
 181
 Suspension of employees, regulations,
 71
 Swift and Company, pensions, 370
 Syracuse Chamber of Commerce,
 Americanization work, 163

T

Talbot Mills, housing plan, 328
 Teachers, training to teach English,
 137
 Terminology of employment, 32
 Trade education (See "Industrial
 training")
 Training (See "Industrial training")
 Training course in employment man-
 agement, Rochester University,
 26
 Transfer of employees, regulations, 71
 Tucker, Dr. George C., 177

Turnover, labor (See "Labor turn-
 over")

U

Unemployment,
 causes of, 169
 due to accidents and illness, 168
 United Shoe Machinery Co.,
 brass band, 229
 lunchrooms, 281
 United States Bureau of Labor
 Statistics, 417
 United States Cartridge Co., acci-
 dents, 240
 United States Chamber of Commerce,
 Americanization work, 163
 housing plan, 334
 housing studies, 307
 United States Department of Labor,
 55
 Bureau of Industrial Housing and
 Transportation, 310
 United States Housing Corporation,
 307, 309
 housing reports, 311
 United States Metal Refining Co.,
 Americanization work, 151
 United States Public Health Service,
 "Studies of the Medical and
 Surgical Care of Industrial Work-
 ers," 175
 United States Rubber Co.,
 Americanization committee, 128
 training system, 92
 United States Shipping Board,
 Emergency Fleet Corporation,
 housing at St. Helena, Md., 316
 United States Steel Corporation,
 brass bands and choruses, 231
 community service work, 393
 housing plan, 330
 playgrounds and kindergartens,
 224, 401
 recreation work, 224
 safety work, 241, 251, 254
 stock participation plan, 356

University Extension, Massachusetts,
Department of, 163
University of Cincinnati, College of
Medicine, 184

V

Victor Talking Machine Co., group
insurance, 363
Visiting committee, Bridgeport Brass
Co., benefit association, 348
Visiting nurses (See "Nurses, visit-
ing")

W

Wages,
adequate necessary, 339
relation to labor turnover, 23
Wagner Electric Manufacturing Co.,
recreation work, 222
Waiting-room, medical department
180
Waller, H. T., 132
Walpole Town Planning Committee,
"Town Planning for Small Com-
munities," 404
Waltham Watch Co., brass band, 229
Wanamaker, John, educational work
of, 115
War,
emergency training, 100
housing planning during, 307
Welfare supervisors, 16, 62
Welfare work,
attitude of labor towards, 16
cause of failure, 14
criticism of, 14
objections to term, 19
Western Electric Co.,
medical examinations, 192
training system, 111
Western Electric News, 295

Westinghouse Electric and Manu-
facturing Co.,
first-aid training, 206
lunchroom, 281
savings fund, 355
training system, 118
White Co., physical training, 206
White Motor Co.,
Employees' Sick Benefit Society,
349
White Book, 295
Wigmore, John H., 168
Willard Storage Battery Co., English
classes, 144
Winchester Repeating Arms Co.,
safety engineer's duties, Figure,
245
Women and girls, working conditions,
64
Women, restrooms for, 203
Wood, Edith Elmer, *Housing Better-
ment*, 323
Woolwich Joint Committee of Trades
and Labour Council, statement,
17
Worcester, Massachusetts, housing
plan, Norton Co., 331
Working conditions, 22, 64
Working force,
cost of hiring, 5
maintenance of, 4
Workman's compensation, 240
Works manager, relation to em-
ployees' service department, 38

Y

Young Men's Christian Association,
120, 223
Youngstown Sheet and Tube Co.,
industrial relations department,
35







RETURN TO the circulation desk of any
University of California Library
or to the

NORTHERN REGIONAL LIBRARY FACILITY
Bldg. 400, Richmond Field Station
University of California
Richmond, CA 94804-4698

ALL BOOKS MAY BE RECALLED AFTER 7 DAYS

- 2-month loans may be renewed by calling (510) 642-6753
- 1-year loans may be recharged by bringing books to NRLF
- Renewals and recharges may be made 4 days prior to due date.

DUE AS STAMPED BELOW

~~JUL 26 2000~~

12.000 (11/95)

11-21-10M-0, 45(00018)

492556

HD 7201
B.6

UNIVERSITY OF CALIFORNIA LIBRARY

